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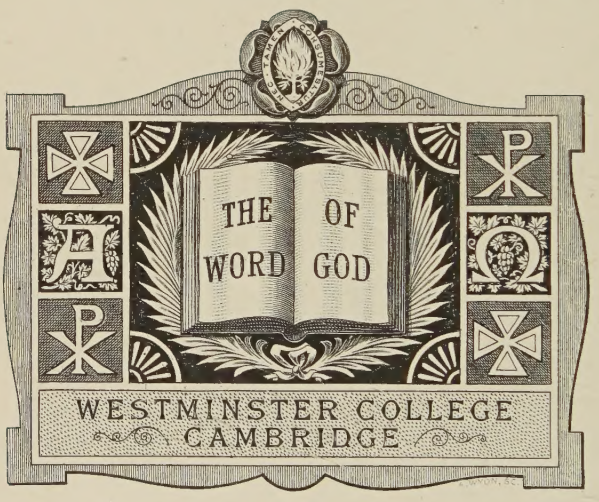

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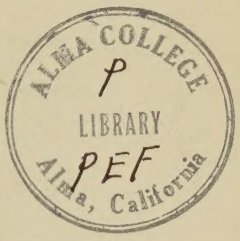
FOR 1900.



LONDON:
PUBLISHED AT THE FUND'S OFFICE,
38, CONDUIT STREET, W.

10369

1900

LONDON:
HARRISON AND SONS, PRINTERS IN ORDINARY TO HER MAJESTY,
ST. MARTIN'S LANE.

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THE
PALESTINE EXPLORATION FUND.

NOTES AND NEWS.

During the last quarter of the year 1899 the excavations were continued by Dr. Bliss at Tell Zakarîya and Tell es-Sâfi until November 24th, when the party removed to Tell ej-Judeideh and commenced work there. Dr. Bliss's reports are published in the present *Quarterly Statement*, together with an elaborate description by Mr. Macalister of the remarkable rock-hewn subterranean chambers at Tell Zakarîya, the rock cuttings at Tell es-Sâfi, &c.

We deeply regret to record the death of Dr. Albert Socin, Professor of Oriental Languages at Leipzig, who was one of the founders of the German Society for the exploration of Palestine, and up to the time of his death acted as editor of that Society's publications. He was born in 1844 in Basle, and studied at the Universities of Basle, Göttingen, Leipzig, and Berlin. In 1868 he undertook his first journey to the East, and after visiting Cairo resided for about a year at Damascus, studying the Arabic language and the Arabian people. From there he visited Jerusalem and the village Ma'lula on the eastern slope of the Anti-Lebanon. In this place he wrote down from the mouth of a Greek Christian woman the ancient West Aramaic dialect which is still spoken there. The year 1870 Socin spent in Bagdad, in Kerbela, amongst the Manda'ern on the lower Euphrates, in Mosul, in Mardin, and Erzeroum, everywhere investigating and writing down the languages of the country. At the end of 1870 he returned to Basle, and in 1871 commenced his active labours as a teacher in the University there. In 1873 he again visited Cairo, Palestine, and Syria. The result of this second journey

was Baedeker's well-known handbook for Syria and Palestine. From 1876 to 1890 he was Professor in Tübingen, and from 1890 to 1899 in Leipzig. Socin's labours occupy a foremost place in connection with the study of the languages of the ancient and modern Orient. Also he took the liveliest interest in the geography, antiquities, and history of the East. For the "Zeitschrift des Deutschen Palaestina-Vereins" he wrote from 1878 to 1885 the reports on new publications in reference to Palestine with great accuracy and sound judgment. The list of Arabic topographical terms which appeared in Vol. XXII of the "Zeitschrift" was one of his last works. It is a remarkable illustration of his effort to build up the exploration of Palestine on a firm scientific basis.

Owing to want of space the publication of several important communications has had to be deferred.

Dr. Schick, in his report, mentions the remarkable fact alluded to by Sir Charles Wilson in his address at the Annual Meeting of the Fund, that the Turkish flag with the crescent and star had been hoisted on the tower of the Church of the Holy Sepulchre. It is believed to be the first occasion upon which a Turkish flag has been hoisted on a Christian church.

A carriage-road from Jerusalem to Nâblus is about to be commenced. The engineer is an Armenian.

So many Russian pilgrims came to Jerusalem last year that there was not enough water for them even in the immense cisterns within the Russian compound. So more very large cisterns are to be erected, water being meanwhile purchased from neighbours. A steam pump and leather hose are employed to raise and conduct the water to the Russian ground.

There was at Jerusalem anxiety amongst the people because of a rumour that the world would come to an end on a certain day in the week between November 12th and 18th, so that the police were obliged to announce that anyone speaking openly in public about it would be imprisoned. The days went over quietly, and a storm with heavy rain occurred in the night of November 16th, making an end of the scarcity of water.

A number of moulds of the various objects found in the excavations have been received at the office of the Fund, consisting of inscribed weights, jar-handles, scarabs, &c. (*see* p. 28). They can be seen, and casts of several can be obtained, on application to Mr. Armstrong.

The concluding volume of Professor Ganneau's "Archæological Researches in Jerusalem and its Neighbourhood" is now published and being issued to subscribers.

In order to make up complete sets of the "Quarterly Statement," the Committee will be very glad to receive any of the back numbers.

Dr. Bliss's detailed account of his three years' work at Jerusalem, published as a separate volume, with the title "Excavations at Jerusalem, 1894–1897," and copiously illustrated with maps and plans, may be procured at the office of the Fund. Price to subscribers to the work of the Fund, 8*s.* 6*d.*, post free.

The "Flora of Syria, Palestine, and Sinai," by the Rev. George E. Post, M.D., Beirût, Syria, containing descriptions of all the Phaenogams and Acrogens of the region, and illustrated by 441 woodcuts, may be had at the office of the Fund, price 21*s.*

The income of the Society from September 23rd to December 27th, 1899, was from Annual Subscriptions and Donations, including Local Societies, £695 10*s.* 10*d.*; from sales of publications, &c., £127 2*s.* 9*d.*; total, £822 13*s.* 7*d.* The expenditure during the same period was £800 13*s.* 8*d.* On December 27th the balance in the Bank was £270 12*s.* 4*d.*

Subscribers in U.S.A. to the work of the Fund will please note that they can procure copies of any of the publications from the Rev. Professor Theo. F. Wright, Honorary General Secretary to the Fund, 42, Quincy Street, Cambridge, Mass.

The price of a complete set of the translations published by the Palestine Pilgrims' Text Society, in 13 volumes, with general index, bound in cloth,

is £10 10s. A catalogue describing the contents of each volume can be had on application to the Secretary, 38, Conduit Street.

The Museum at the office of the Fund, at 38, Conduit Street (a few doors from Bond Street), is open to visitors every week-day from 10 o'clock till 5, except Saturdays, when it is closed at 2 p.m.

It may be well to mention that plans and photographs alluded to in the reports from Jerusalem and elsewhere cannot all be published, but all are preserved in the office of the Fund, where they may be seen by subscribers.

While desiring to give publicity to proposed identifications and other theories advanced by officers of the Fund and contributors to the pages of the *Quarterly Statement*, the Committee wish it to be distinctly understood that by publishing them in the *Quarterly Statement* they neither sanction nor adopt them.

Subscribers who do not receive the *Quarterly Statement* regularly are asked to send a note to the Acting Secretary. Great care is taken to forward each number to those who are entitled to receive it, but changes of address and other causes occasionally give rise to omissions.

Tourists are cordially invited to visit the Loan Collection of "Antiques" in the Jerusalem Association Room of the Palestine Exploration Fund, opposite the Tower of David, Jerusalem. Hours: 8 to 12, and 2 to 6. Maps of Palestine and Palestine Exploration Fund publications are kept for sale.

Photographs of Dr. Schick's models (1) of the Temple of Solomon, (2) of the Herodian Temple, (3) of the Haram Area during the Christian occupation of Jerusalem, and (4) of the Haram Area as it is at present, have been received at the office of the Fund. Sets of these photographs, with an explanation by Dr. Schick, can be purchased by applying to the Secretary, 38, Conduit Street, W.

Branch Associations of the Bible Society, all Sunday Schools within the Sunday School Institute, the Sunday School Union, and the Wesleyan Sunday School Institute, will please observe that by a special Resolution of the Committee they will henceforth be treated as subscribers and be allowed to purchase the books and maps (by application only to the Secretary) at reduced price.

The Committee will be glad to receive donations of Books to the Library of the Fund, which already contains many works of great value relating to Palestine and other Bible Lands. A catalogue of Books in the Library will be found in the July *Quarterly Statement*, 1893.

The Committee acknowledge with thanks the following :—

"Recueil d'Archéologie Orientale." Publié par Professor Ch. Clermont-Ganneau. Tome III, Livraison 22. *Sommaire :*—§ 57. Les inscriptions néopuniques de Maktar (*suite et fin*). § 58. L'épitaphe de Ya'mour d'Ascalon. Additions et Rectifications. Table des Matières. Table des figures dans le texte. Table des planches hors texte (Pl. IX et X). Avis.—Les livraisons 23-25, Complétant le tome III, sont réservées à l'Index général et détaillé des Matières Contenues dans les trois tomes. Cet Index, dressé par M. J. B. Chabot, sera envoyé aux Souscripteurs au commencement de l'année 1900, avec les couvertures et titres du présent volume.

The authorised lecturers for the Society are—

AMERICA.

Professor Theodore F. Wright, Ph.D., 42, Quincy Street, Cambridge, Mass., Honorary General Secretary of the Palestine Exploration Fund for the United States. His subjects are as follows :—

(1) *The Buried City of Jerusalem.*
(2) *Discoveries in Palestine.*

ENGLAND.

The Rev. Thomas Harrison, F.R.G.S., The Vicarage, Appledore, Ashford, Kent. His subjects are as follows :—

(1) *Research and Discovery in the Holy Land.*
(2) *Bible Scenes in the Light of Modern Science.*
(3) *The Survey of Eastern Palestine.*
(4) *In the Track of the Israelites from Egypt to Canaan.*
(5) *The Jordan Valley, the Dead Sea, and the Cities of the Plain.*
(6) *The Recovery of Jerusalem*—(*Excavations in* 1894).
(7) *The Recovery of Lachish and the Hebrew Conquest of Palestine.*
(8) *Archæological Illustrations of the Bible.* (Specially adapted for Sunday School Teachers.)

N.B.—All these Lectures are illustrated by specially prepared lantern slides.

The Rev. Charles Harris, M.A., F.R.G.S., Appledore, Ashford, Kent. (All Lectures illustrated by lantern slides.) His subjects are as follows :—

(1) *Modern Discoveries in Palestine.*
(2) *Stories in Stone; or, New Light on the Old Testament.*
(3) *Underground Jerusalem; or, With the Explorer in* 1895.

Bible Stories from the Monuments, or Old Testament History in the Light of Modern Research :—

(4) A. *The Story of Joseph; or, Life in Ancient Egypt.*
(5) B. *The Story of Moses; or, Through the Desert to the Promised Land.*
(6) C. *The Story of Joshua; or, The Buried City of Lachish.*
(7) D. *The Story of Sennacherib; or, Scenes of Assyrian Warfare.*
(8) E. *The Story of the Hittites; or, A Lost Nation Found.*

Scotland.

The Rev. James Smith, B.D., F.S.A., F.R.G.S., St. George's-in-the-West Parish, Aberdeen. (All Lectures are illustrated with lantern slides, many of which are coloured.) His subjects are as follows :—

(1) *The Palestine Exploration Fund.*
(2) *A Pilgrimage to Palestine.*
(3) *Jerusalem—Ancient and Modern.*
(4) *The Temple Area, as it now is.*
(5) *The Church of the Holy Sepulchre.*
(6) *A Visit to Bethlehem and Hebron.*
(7) *Jericho, Jordan, and the Dead Sea.*

The Rev. W. Burnet Thomson, M.A., B.D., Galashiels, N.B. His subjects are as follows :—

(1) *The City of the Great King; or, Jerusalem and the Explorer.*
(2) *The Temple, the Sepulchre, and Calvary.*
(3) *Southern Palestine.*
(4) *Jerusalem to Damascus.*
(5) *Palestine and Jesus Christ (for children).*
(6) *The Bible and the Monuments. Discoveries in Ancient Land.*

All illustrated with lantern slides.

Wales.

The Rev. J. Llewelyn Thomas, M.A., Aberpergwm, Glynneath, South Wales. His subjects are as follows :—

(1) *Explorations in Judea.*
(2) *Research and Discovery in Samaria and Galilee.*
(3) *In Bible Lands; a Narrative of Personal Experiences.*
(4) *The Reconstruction of Jerusalem.*
(5) *Problems of Palestine.*

FOURTH REPORT ON THE EXCAVATIONS AT TELL ZAKARÎYA.

By F. J. Bliss, Ph.D.

On resuming work at this site on September 11th I was fully impressed with the situation of affairs. The details of the fortress had been fully worked out, and no other important building had been found. Accordingly nothing remained for us to do but to put in practice the theory which I stated on p. 23 of the January *Quarterly Statement* for the current year:—"After several years of digging in Palestine I have come to the conclusion that, owing to many conditions that need not be detailed now, antiquities are exceedingly scarce, and that the only hope for finding these is, first, to choose a site that is proved to be ancient, and then to turn over great quantities of soil on that site." Now the antiquity of Tell Zakarîya had been amply proved by the objects found. Not to go into details, it seemed indisputable that we had found traces both of pre-Israelite and Jewish occupations. The lower stratum showed scarabs of the eighteenth dynasty and types of pottery of the same date, similar to those found in the stratum at Tell el-Hesy, which contained the cuneiform tablet. In the upper stratum had been found jar-handles and weights, inscribed in Hebrew, presumably of the time of the Hebrew monarchy. The reasons for turning over about half the soil in the interior of the fortress had been two: First, to determine the nature and number of periods of the structures within; and, second, if possible, to discover important inscriptions. The results of the first quest are shown in the plans and sections published in the July *Quarterly*. The results of the second were disappointing, for while the short inscriptions referred to above turned up, no important steles were found. Accordingly it seemed best to turn our attention to the lower plateau. A series of 16 pits sunk on this plateau during our first season had revealed a depth of soil ranging from 6 to 18 feet, which showed two strata: the lower, pre-Israelite; the upper, Jewish. Our main,

if not our chief, hope in beginning a large clearance was for cuneiform tablets in the lower stratum, tablets that might throw further light on the history of the land before the Jewish Conquest, and give us the other end of the Tell el-Amarna correspondence; and for Hebrew steles in the upper stratum which might have the interest attaching to the Moabite Stone, or to the Siloam Inscription. Incidentally we hoped to add to our knowledge of the pottery. In reporting that while this last hope was fulfilled the others were doomed to disappointment, I must not be held to discredit my theory of digging. Tablets may or may not occur in the unexcavated parts of Tell Zakariya, but the soil in which we were working is certainly the soil in which tablets may be looked for. Tell el-Hesy is very much smaller than Tell Zakarîya, and Tell el-Hesy had its tablet, and the unexcavated portions may hold many more.

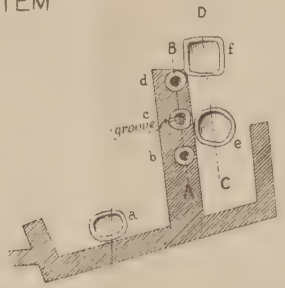
The plan of the plateau is given on the plate facing p. 16 in the January *Quarterly Statement*. It is in the form of a rude triangle trending north-eastwards from its base, the road from the valley striking the summit at the apex. The northern part of the plateau is fairly level, and has a distinct edge. On the south-eastern portion are superimposed the ruins of the fortress. At the south-west the surface is irregular, and shows an outcrop of rock, in which wine and olive presses have been cut. The most favourable portion for digging appeared to be along the line CD, in the centre of which had been found a quantity of early pottery. This point was taken as the centre of a large clearance to the rock, 80 feet by 60 feet, worked in sections each 30 feet broad, according to the method described before.[1] The rock lies at an average depth of about 14 feet. A third section, of the same dimensions, was begun, but deepened for 7 feet only, this depth representing the stratum in which Jewish inscriptions might be expected.

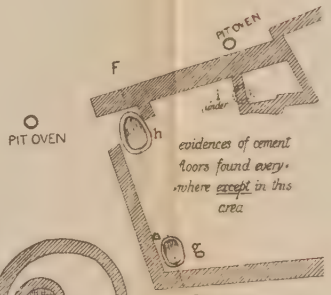
Immediately under the surface we found many walls enclosing small rooms. They are built of rubble, and range in breadth from 2 to 4 feet. As the pottery found within these walls was Jewish or earlier, including many whole examples, with no admixture of Roman or Arab, it appears to be proved

[1] *See* p. 98, April *Quarterly Statement*.

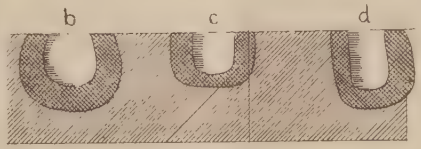
TELL ZAKARÎYA EXCAVATION

VAT-SYSTEM

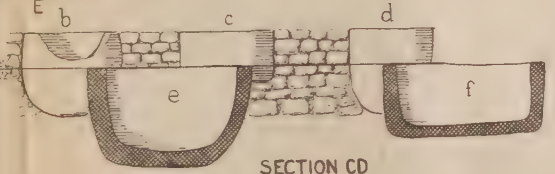




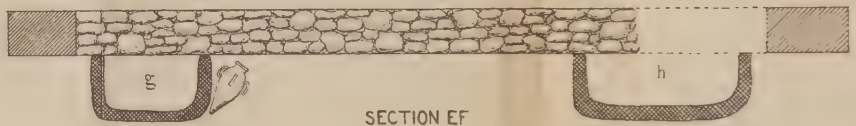
PLAN



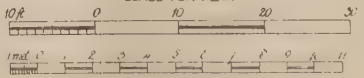
SECTION AB

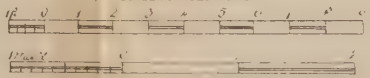


SECTION CD



SECTION EF





that this part of the Tell has not been rebuilt since the Jewish period. The walls stand nowhere for more than 3 feet, and they rest immediately on the *débris*. They are much ruined, many are in their present condition isolated, and nothing would be gained by publishing a full plan, which without much reconstruction would be unintelligible. We submit, however, a plan of a portion of the remains, which contains a system of stone vats (*see* Plate I). The three small vats, *b*, *c*, and *d*, globular in shape, are sunk in a dwarf wall 3 feet high. One foot below its top there is a cement flooring, flush with the rims of the vats *c* and *f*, as seen on section line CD. There is no direct means of connection between the higher and the lower system, and the liquid (wine, oil, or treacle) must have been transferred manually from the vats in the wall to the vats in the floor.

In passing a yard at Beit Jibrîn the other day I noticed a system of vats not unlike those just described. A man and wife were scooping out oil just pressed from the olives, and pouring it into another. The internal depths of vats *b*, *c*, and *d* are 18, 15, and 22 inches respectively; the diameters at the mouth are 14, 14, and 12 inches respectively; all-over diameters across top, 30, 31, and 33 inches. Vat *c* has a small groove near the top. The two lower vats, *e* and *f*, are 28 and 18 inches in depth respectively; diameters at mouth, 44 and 49 inches; thickness of sides, 4 to 6 inches. Vat *a* probably belongs to this same system.

Vats *g* and *h* were sunk below the level of the flooring, and their tops are flush with the base of the adjacent wall. The flooring, however, is ruined, though traces of it remain immediately along the line of the wall. The large jar with four handles, near vat *g*, appears to be a foundation deposit. The measurements of vats *g* and *h* are as follows:—Depths, 19 and 21 inches respectively; thickness of sides, 4 to 6 inches; large internal axis, 36 and 48 inches. Vat *i* lies under one of several dwarf walls, only 1 foot high, which divide a plaster floor into compartments, probably used as vats. Vat *i* is, of course, earlier than the compartments. It is 16 inches deep, and 18 inches across the mouth. The bottom was broken out, and

has been repaired with a fine white cement. On its surface signs of pock-dressing appear.

The cistern shown on the plan consists of a natural cavern, with a shaft built up to the present surface in two rings of rude masonry, not concentric, with a rough filling in between them. The top was covered over with large slabs immediately under the surface, though the existence of the shaft did not seem to be known to the Fellahîn.

In the lower or pre-Israelite stratum was found another series of very rude constructions, too ruined to form a coherent plan. Signs of two periods were observed; for example, a circular brick construction had been broken into by the foundations of a later wall. This resembled a large pit-oven, but, as the usual signs of burning on the interior surface were absent, it must have served some other purpose. Its over-all diameter was about 4 feet, the walls being 7 inches thick, consisting of sun-dried bricks, white with red facing, both inside and out. Signs of a small opening appeared about 2 feet from the bottom. On the floor inside was a layer of ashes, containing small fragments of pottery, stones with traces of severe firing, and human bones, also burned, including a radius, a pelvis, a bit of a tibia, and a fragment of a sacrum. That these had not been burned within the construction is proved by the absence of firing on its walls. If similar constructions containing burned bones be found in the future we shall be better able to settle the question whether the bones were deposited on purpose or whether we have here an ordinary receptacle for grain into which bones had been accidentally cast. Another possible explanation occurred to us while the construction was being cleared out. Above the ashes it was filled with *débris* containing fragments of brick, which appeared to be parts of the ruined walls of the construction itself. Three of these contained circular channels, of about 1 inch diameter, which suggested the *tuyères* found in the furnace excavated at Tell el-Hesy (*see* my "Mound of Many Cities," p. 46), which, however, showed a much larger chamber, having a diameter of 7 feet. The absence of firing in the Tell Zakarîya construction appears to militate against one supposing these channels to be

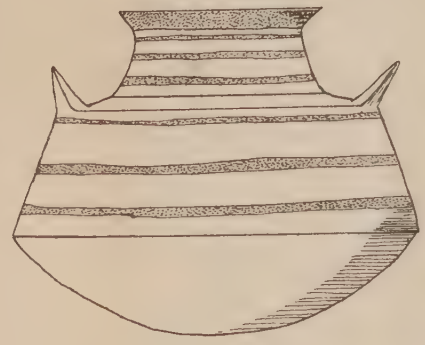
To Face Page 11.

TELL ZAKARÎYA EXCAVATION

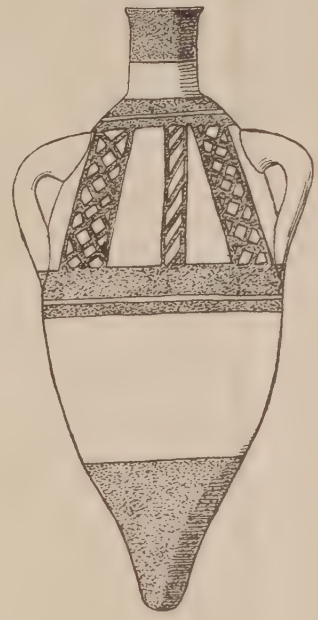
PRE-ISRAELITE POTTERY

1

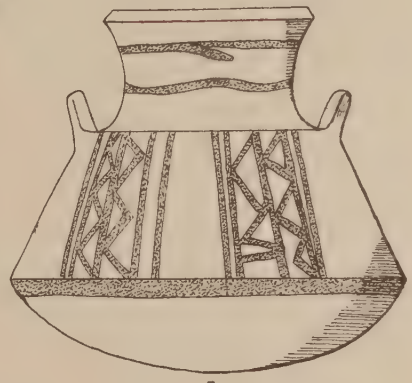
2



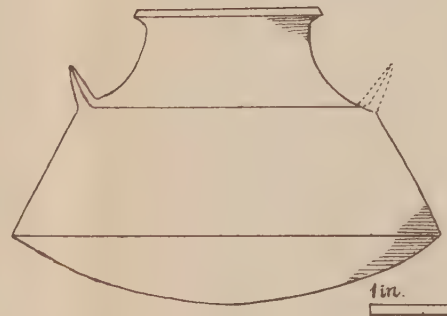
3



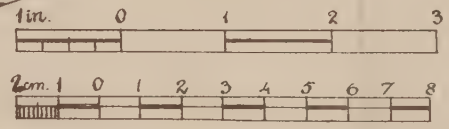
4

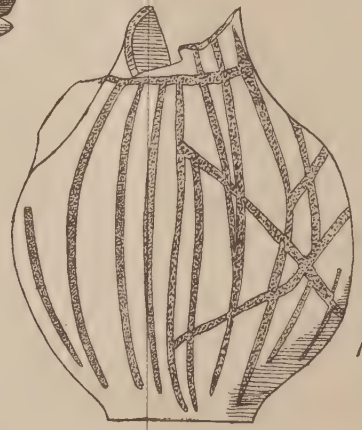


5



6





7

8

9

red

F. C. Bliss.

R. A. Stewart Macalister

J. Akerman, Photo-lith. London

tuyères. No such channels were found in the 3 feet of walling which remains standing. Their purpose remains obscure.

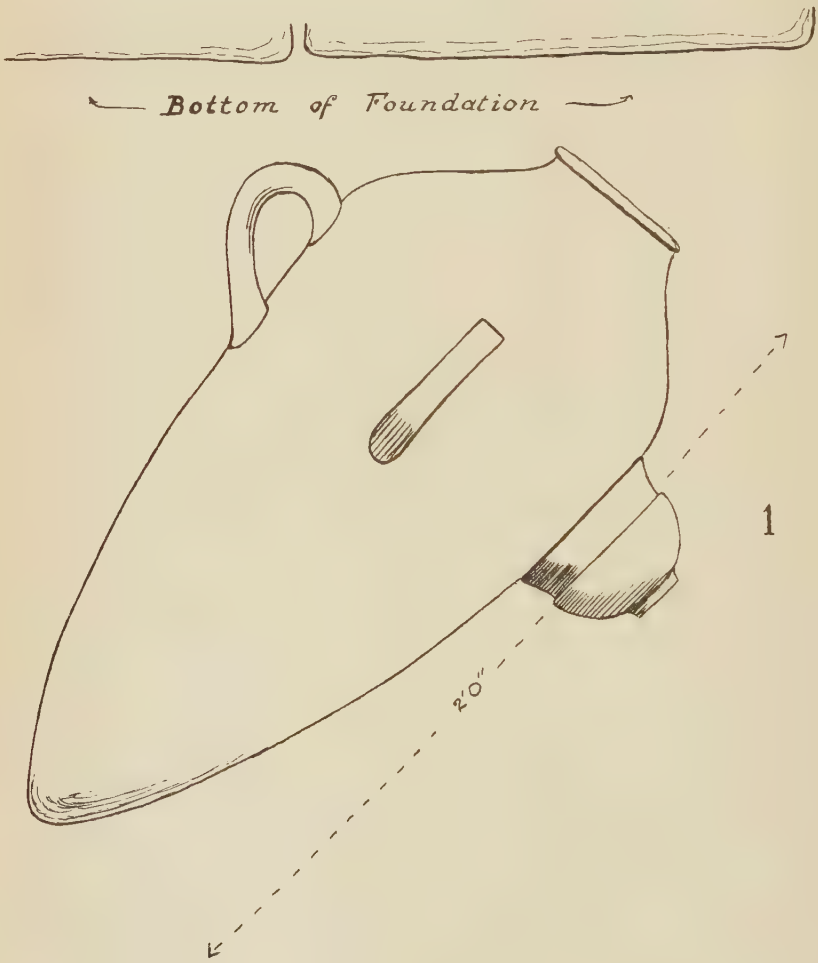
Many whole jars and vases were found in the course of this excavation. Several of these are now published. The types are Jewish and pre-Israelite. It will be well to explain the sense in which we use these terms. As proved by the stratified mound, Tell el-Hesy, where eight superimposed cities were excavated, the pottery of Palestine, before the Seleucidan period, may be conveniently divided into three classes. First, the types called by Petrie "Amorite," showing peculiar characteristics, such as ledge-handles, patterned burnishing, comb-facing, &c. These occurred in the first, or lowest, city to the exclusion of all other types, but extended in more or less modified forms into Jewish times. Very little of this ware was found at Tell Zakariya, but Tell es-Sâfi has a stratum on the rock which shows these types to the exclusion of all others. We prefer to call this ware early pre-Israelite rather than Amorite. The second class includes Phoenician ware and local shapes, based upon the Phoenician, together with certain associated types, which are found as early as 1400 B.C., but which also come down to Jewish times. These we name later pre-Israelite. By the time of the later Hebrew monarchy both the "Amorite" and Phoenician types have degenerated, and we find a class of pottery showing a mixture of styles. Hence, in using the term pre-Israelite in regard to any given jar we mean that it belongs to a type that came in during pre-Israelite times, though the particular specimen may have been made during the early Hebrew monarchy. On the contrary, in using the term Jewish we exclude not only pre-Israelite times, but also the period of the early Jewish monarchy. In speaking of strata, however, where we have thousands of specimens to consider, as well as associated objects which may be dated, the use of the terms is fairly inclusive: in other words, the two strata may be taken to represent an accumulation extending from pre-Israelite to late Jewish times.

On Plate II are shown some pre-Israelite types. No. 1 is of fine drab-coloured paste, ornamented in black and red. The line and zigzag pattern is characteristic. It is 27·75 centimetres

in height, the body is oval, it has a slightly convex disc base, two loop handles, and long cylindrical neck, slightly expanding at the mouth. No. 4 is of the same general type, but it is smaller and the ornamentation is different. The vessels 2, 3, 5, and 6, are of one type, having convex bases, wide mouths, and small ear handles. They all show painted ornament except No. 6. No. 8 is a jug with the characteristic pointed Phoenician base. Nos. 7 and 9 are uncharacteristic, but being found near the rock are placed on this plate. On Plate III a mark of query is put after the title "Jewish" as some of the forms are uncertain. Nos. 3 and 6 are clearly late. Nos. 1 and 2 were found on the dividing line between the two strata; they have the painted bands characteristic of the earlier ware, but their clumsy shapes suggest the time when degeneration had set in. They both spring from a trumpet-shaped hollow foot, as shown in section. No. 1 has a cylindrical neck with roll-moulded mouth. The neck of No. 2 is very short, producing an unsymmetrical effect. No. 5 was found near the surface and is of a type new to us. It is a small jug with very thick side, and having a long, heavily-moulded neck, all out of proportion to the size of the vessel. The handle is broken off. No. 4 is of the Pilgrim-bottle type.

Four jar-handles with Royal stamps were found. The first shows the four-winged symbol, with the inscription למלך שוכה, similar to those previously published. The second is interesting from the fact that the body of the four-winged creature is found for the first time with pronounced articulations. One possible objection suggested by Mr. Macalister to the proposed identification of the symbol with the flying scarabæus beetle is the outward curvature of what would, according to this theory, represent the *elytra* or hard wing cases, which is exactly the reverse of the natural curvature. A facsimile drawing is submitted. The place-name is greatly worn, but the first letter is clearly ז, the last is probably ף, and the long bar of the י appears in the middle letter. Mr. Macalister also recognises traces of the crossbars as dotted in on the cut. This gives זיף (Ziph) (Cut I) for the reading. The name of this city is probably found on Example No. 9, Plate V, July

PALESTINE EXCAVATIONS
GROUPED POTTERY DEPOSITS



Quarterly Statement. The third was imperfectly stamped, and shows only the lower half of the oval, but the figure was clearly of the four-winged type: the place-name is probably Hebrew, as the first two letters, ח and ב, are clear. Of the other letters no traces remain. The fourth specimen shows the symbol of the two-winged type; it is so badly distintegrated that even the symbol is faint, and not a sign of lettering remains in either line.

In the upper, or late Jewish, stratum, only 2 feet under the surface, was found a jar-handle of dark red ware, with a pronounced rib in the centre, above which is the impression of a seal. The stamp is enclosed in an ellipse (*see* No. 1 in Cut II, p. 18), and is divided into two parts by a horizontal line separating

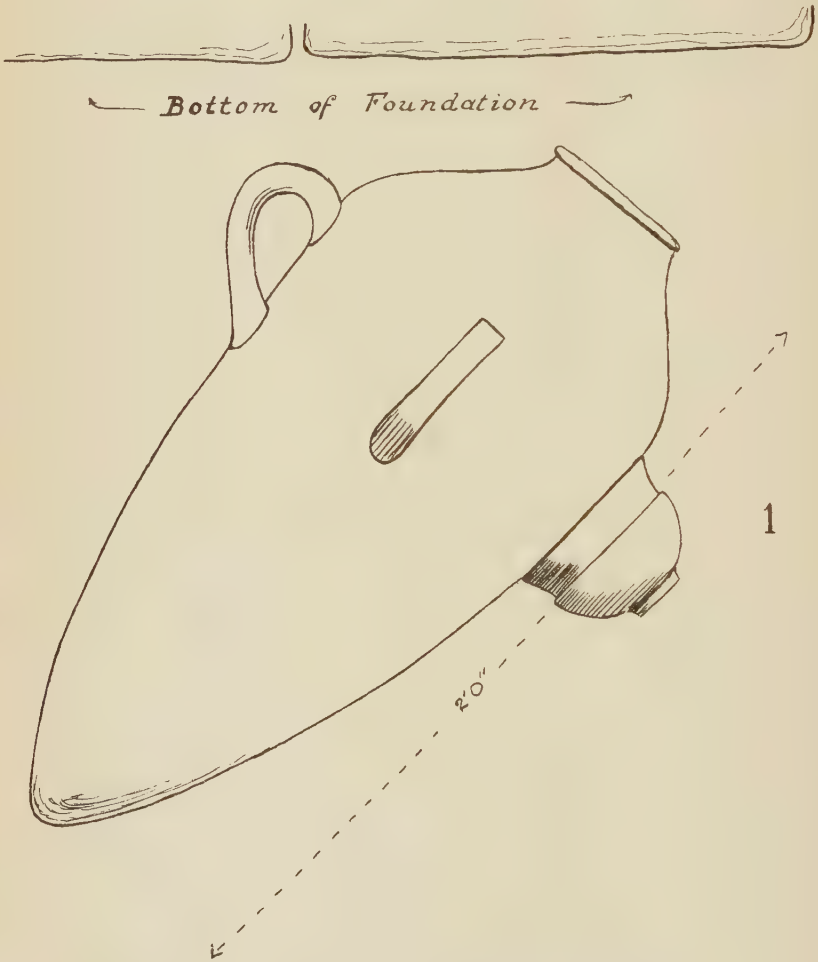
I.—Royal Stamp.

two lines of writing. The letters were coarsely cut on the seal. The four letters forming the upper line are perfectly clear, and read לעזר. The large size of the *'ayin* and its oval shape are to be remarked. In the lower line the first letter is plainly *cheth* and the last *yod*. The main vertical line of the central letter is clear, but the top part is somewhat obscure, and at first we were doubtful whether it were a *vau* or *resh*. In the first case we must read חוי, in the second חרי. Careful microscopic examination, however, revealed the salient features of the *resh*. Accordingly we have for the reading of the stamp: "Belonging to 'Ezer, 'Hori." 'Ezer is found as a proper name in Num. xiii, 5, 1 Chron. xii, 9, and Neh. xii, 42; in the first reference we find mention of 'Hori, son of Shaphat, of the tribe

of Judah. The absence of the article in the stamp seems to forbid our reading the word as Horite, for with this meaning the article is indispensable. This fact strengthens the case against חורי, as there is no example where this word is used as the name of an individual; it is always employed generically, החורי, *i.e.*, the Hivite.

Stamp No. 2 (p. 18) was not found on the plateau but near the edge of our large clearance pit inside the fortress, which was abandoned last spring. The letters are exceedingly fine, and the jar-handle was probably overlooked by our workmen, who may have taken it for a mere finger-print, which is a common feature on jar-handles. I may mention incidentally that in case we find that anything important has been overlooked, such visions of lost *bakhshcesh* are presented to the workmen that anything bearing the slightest resemblance to the recovered object is subsequently treasured up for our inspection. One compensation for having to fill up the excavations is the fact that the soil has to be re-handled. I am glad to say that the increasing care of the workmen is proved by the lack of finds in the course of our latest filling up. This jar-handle is of red ware, similar to No. 1, but has two pronounced ribs. The stamp is elliptical in form, the two lines of writing being separated by two parallel bars like the example figured on p. 198 of the July *Quarterly*. In stamping the pressure was unequally applied, so that the lower right corner of the ellipse does not appear. The upper line reads לצפנ֯א. Owing to a small cavity in the surface the lower end of the פ is not traceable. Between the last two letters occurs a short vertical mark, which does not extend to a second small imperfection found below it. That this mark is not accidental is indicated by the following considerations:—(1) The relief is precisely similar in character to the relief of the letters. (2) If we ignore it, the distance between the last two letters appears to be a trifle too great. (3) Similar marks may be seen in examples 7 and 9 of the stamped jar-handles figured on Plate V facing p. 184 of the July *Quarterly*. The lower line reads מעץ, but these letters do not occupy the centre of the line, place for one letter remaining before the מ. Now this word, signifying

PALESTINE EXCAVATIONS
GROUPED POTTERY DEPOSITS



anger, is found as a personal name in 1 Chron. ii, 27. The quadrilateral צפנא, however, presents difficulties. The root צפן occurs in the personal name צפניה—Zephanîah, which signifies "Jehovah protects." As a possible solution, I would propose to restore a letter in the vacant space before the מ, to regard the small vertical mark between the last two letters of the first line as a mark of separation between two words, and thus to read לצפן א–מעץ. In the case of the Royal stamps, mentioned above, this vertical mark seems to serve the purpose of a hyphen between two parts of the same word separated by the symbol, whereas in the present case we assume it to be equivalent to the modern printer's dash. Possibly the lost letter may be a ב, in which case we would have the word אבמעץ, "the father of wrath," a name analogous to אחימעץ (Ahimaaz), "the brother of wrath" (*see* 1 Sam. xiv, 50). As neither צפן nor אבמעץ occur in Scripture, our suggestions are offered with considerable hesitation.

Stamp No. 3 (p. 18) was found at Tell es-Sâfi. The oval is divided into three parts by two vertical lines. In the central division we have seven symbols. At the bottom are two identical symbols side by side; these two are also found at the top but reversed in position. The three symbols found between these two pairs appear twice repeated in the right division of the oval. The left division is much worn, but signs of a similar double repetition appear, the symbols, however, being inverted and the order changed. Three of the symbols found on this stamp appear on Scarab No. 3, Plate VI, in the October *Quarterly*.

On Plate IV are shown various groups of pottery deposits. Nos. 1 and 2 are from Tell Zakarîya, the rest from Tell es-Sâfi. Nos. 2 and 3 are the most common. In group No. 2 we have four vessels: A bowl containing a lamp, filled with fine earth, covered by a second bowl, inverted, above which is another inverted bowl. Where the vessels do not fit closely the intervening spaces are also filled with fine earth. No. 3 differs from No. 2 in having but one inverted bowl. These were found buried near the bases of walls. Similar deposits were very common at Tell el-Hesy, in Cities IV and Sub-IV, which

are dated from about 1400 to 1000 B.C.[1] The position of group No. 1 with reference to the base of a wall is shown on the plate. Here we have two vessels, first a small bowl (similar to the lowest bowl in group No. 2), somewhat tilted; second, a large jar with four handles, also tilted on its side, so that one handle rests within the bowl. For a somewhat similar combination of jar and bowl, *see* Plate IV, July *Quarterly*. In group No. 4 we have a long cylindrical jar, placed upright on its pointed bottom; the mouth is closed by a bowl, not inverted, on which rests a small jug. The shape of the jar is new to us, but the associated vessels appear to be early Jewish. Another form of jar-burial (obtaining also at Tell el-Hesy) was found at Tell es-Sâfi. A large jar was found resting on its side, the mouth broken away to admit of the insertion of two jugs and a bowl, which were found within. It was packed with fine earth and contained small bones, apparently of birds. The report from Tell es-Sâfi will refer to a jar-burial antedating the examples just mentioned.

TELL EJ-JUDEIDEH, *December 4th*, 1899.

THIRD REPORT ON THE EXCAVATIONS AT TELL ES-SÂFI.

By F. J. BLISS, PH.D.

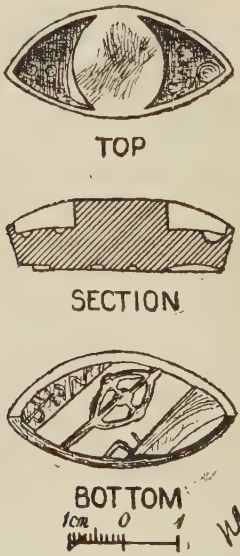
THE Tell es-Sâfi excavations were resumed October 9th and continued to November 22nd, when preparations were begun for moving camp to Tell ej-Judeideh. During this period an enormous quantity of soil was turned over, but unfortunately with very few results. In my report in the July *Quarterly*, p. 191, I called attention to the difficulties attending excavations on this site:—"The south end is occupied by the modern graveyard, the modern village rules out the north portion, while another graveyard is found over a great part of the narrow plateau extending to the north-east. We are thus

[1] *See* "Mound of Many Cities," p. 84.

confined to the steep slopes above the wall, to a portion of the north-east plateau, and to a narrow section across the summit, east and west, between the southern graveyard and the modern town. The last portion does not give us a free hand as it is divided into three fields by lofty and dense hedges of cactus, the central field being planted with vegetables. The graveyard at the important south end will, of course, prevent our searching for the ancient Acropolis, but even if the tombs did not exist the earliest remains could not have been examined here without digging through the foundations of Blanche-Garde."

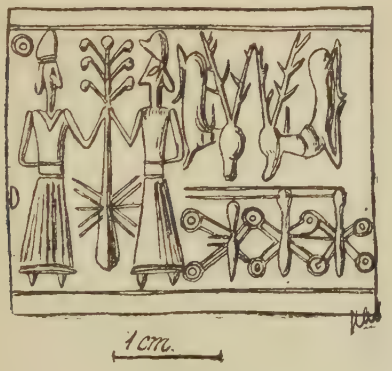
We have already reported on the large clearance made on the north-east plateau, where rude walls enclosing three standing stones, perhaps representing the remains of an early place of worship, were found. It seemed best, on our return, to attack a point more within the centre of the town and near to the Acropolis. The crops having been reaped in the western field of the series of three just mentioned as lying between the Wely and the town, we were able in July to sink several shafts to determine the nature and depth of the accumulation. In this field we have since made a large clearance to the rock, 80 feet by 60 feet, and on the average about 16 feet deep. Allowing for the space to deposit the earth, this was about as large an excavation as the field would permit. The pottery showed three strata—Jewish, late pre-Israelite, and early pre-Israelite. The extreme paucity of Arab ware in the upper stratum was curious considering the proximity to Blanche-Garde, and the fact that much Arab stuff was found in the neighbouring field. Walls were found at two different levels, in some cases still enclosing small rooms, two of which have doors. The construction is of the rudest, far worse than anything found at the north-east plateau. In fact, the houses appear to be quite as wretched as the hovels of the modern village. Some jars and bowls, the stamped jar-handle No. 3 (Cut II, p. 18), numerous flints, four scarabs, a few ordinary Egyptian amulets, a Babylonian cylinder, and the slate object resembling an eye (*see* Cut III), but evidently, from the markings on the back, cut out of some larger stele, were

II.—Seals impressed upon Jar-handles.



III.—Figure of an Eye, in polished black marble.

IV.—Scarabæi from Tell Zakarîya (1–2) and Tell es-Sâfi (3–6).



V.—Seal Cylinder.

the only discoveries. The scarabs (Cut IV) 3 to 6 were all found at a depth of about 8 feet; 3 is of green jade, 5 and 6 are of bluish-green paste, 4 is slate. Nos. 1 and 2 were found at Zakariya. No. 1 is of bone, and includes the cartouche of Thothmes III: No. 2, on which appear the characters found on 3 and 5, is of paste. The cylinder (Cut V) shows stags *couchant*, back to back, and a tree, on each side of which is a male figure grasping the trunk.

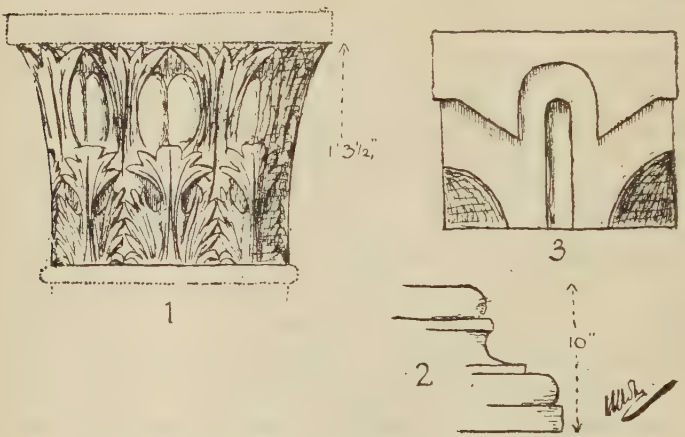
So few were the results from this large clearance that we decided on another method for testing the field to the east. This field occupies a position almost in the centre of the ancient town, at a point about equi-distant from the east and west walls. Even had the Tell been unencumbered this would have been a point to be chosen for digging. Here we sank a series of shafts, 12 feet square and 16 feet apart, in three lines, each including four shafts, except the western line, on which there were but three, making 11 in all. These shafts were sufficiently large and sufficiently near together to make it extremely improbable that we should miss any important building. The idea was that if any such building were struck it would appear in more than one shaft, and we could then extend our digging to the spaces left between the shafts; or if a stratum of tablets appeared we could easily follow it in the same way. We thus hoped practically to exhaust the possibilities of an area 68 feet by 96 feet, which was the maximum area that could be excavated in this field, making allowance for space for depositing the earth against the enclosing cactus hedge. Rock was found at an average depth of 19 feet. Making the proper allowance for batter, we thus carefully examined over 25,000 cubic feet of soil, or about one-fifth the quantity which would have been excavated had we cleared out the whole area to the rock. The results were even more unsatisfactory than those from the western field. A few rude walls, generally of uncoursed rubble, were found at various depths, but with the exception of one late wall immediately under the surface, these were not found to extend from shaft to shaft. Signs of mud-brick walls and a rude pavement also appeared. Almost all the pottery was in fragments. The soil had been

much disturbed in quite recent times, as a modern Arab coin was found at a depth of 10 feet, and many signs of filled-up pits appeared. To a depth ranging from 6 to 8 feet there was much Arab pottery intermingled with older styles. The peculiar Jewish styles were not in much evidence, the wall being chiefly pre-Israelite, including a stratum on the rock of the earliest types. In this stratum were found the extraordinarily thin flint knives and the thick scrapers for skinning animals, characteristic of the lowest city at Tell el-Hesy.

The buried jar, containing smaller vessels, has been mentioned with other groups described in the Tell Zakariya report. These were all of the later pre-Israelite type. Up to the present season the earliest examples of buried vessels belonged to dates no earlier than the Phoenician period. However, 2 feet below the group just mentioned was found a very large jar, 33 inches high, showing some of the characteristics of the ware called by Petrie "Amorite," which antedates the Phoenician ware: beautifully curved neck, shoulder with cable moulding, disc base, and comb-facing, formed by an instrument with very wide spaces between the teeth. It stood upright, was empty, and was covered by a fragment of a dish, also of "Amorite" type showing the finer form of comb-facing.

So discouraging were the results from this field, which, by its position, appears to indicate an important part of the ancient city, and was proved by the pottery to represent a series of occupations from the very earliest times, that we decided it would not be wise to dig further in the remaining, or eastern field, in which we had already sunk three shafts; or to test two small fields, which represent the rest of the available space between the cemetery and the modern village. Neither did it seem worth while to return to the north-east plateau, where we had made a large clearance, and where the only important result had been the discovery of the supposed temple. In other words, the spaces available for excavation at Tell es-Sâfi had been sufficiently tested. The question now arises, from which part of the Tell came the statuettes, pottery masks, figures, and other interesting objects found in the rubbish heap? Apart from a

few small stone fragments, from one of the 11 shafts just described, fragments which may possibly be the legs of small figures, nothing resembling these statuettes has been dug up. The objects from the rubbish heap appear to indicate a civilisation superior to anything suggested by the constructions we have excavated. We are obliged to conclude that the important portions of the city lie under the southern cemetery, which immediately covers the ruins of Blanche Garde (itself probably superposed on the ancient Acropolis) and under the modern village. In the courtyards of the houses and lying loose in the streets we observed several architectural fragments. Especially



VI.—Architectural Fragments found in the Village of Tell es-Sâfi.

to be noticed are a debased Corinthian capital (No. 1 in Cut VI), two Attic bases of common type (No. 2), a fragment of a marble column with filleted flutings, and a rather early Romanesque capital (No. 3). A later Roman capital, founded on the Corinthian type, and showing the eight-pointed cross of the Knights of St. John in a circle just under the abacus, is lying beside the Wely on the north-east plateau.

On the plan of Tell es-Sâfi, north of the large cemetery, may be seen the mark *x*. This indicates the ruins of a tower, cropping out from the surface, at an angle of the field where we sank the 11 shafts. This was visible at the time of my visit

to the place in 1891. In describing the city wall traced by us, I stated on p. 195 of the July *Quarterly*: "At *b* five courses crop up above the surface, and this is probably the part seen by Dr. Petrie, and rightly taken by him to be part of the ancient rampart." My report was written under great pressure, while the work was going at full speed, and I must be pardoned an inaccuracy. Petrie's note of the masonry seen by him is as follows (*see* his "Tell el-Hesy," p. 62):—"Tell es-Sâfi: Walling of shallow drafted blocks with flat faces, long-stroke dressing." "This (the long-stroke dressing) is done with an edge or point, without showing any breadth of cut; the strokes are somewhat curved and in groups of parallel cuts. . . . . It is the dressing of the wall at Tell es-Sâfi: this being surrounded by Amorite or early Jewish pottery . . . . is probably the old Philistine fortress of Gath" (p. 36).

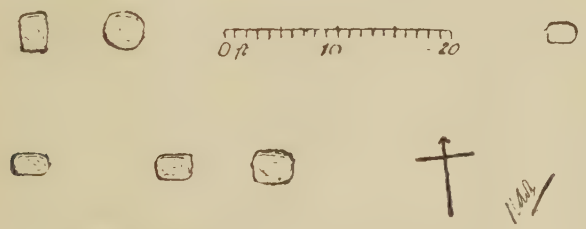
As the wall at *b* has evidently been exposed for years, and as we had proved it to be part of the ancient rampart, whereas the tower at *x* appeared to me clearly to belong to an enclosure about the fortress of Blanche-Garde, I took it for granted that it was the former which was identified by Petrie with the city wall. However, a comparison of the masonry at both places with his description shows that the walling seen by him was the one at *x*. At *b* the stones all have rough faces and are pock-marked. The tower at *x* has been robbed of its facing stones, but two, though dislodged, have not been removed, and they correspond to Petrie's description, showing a shallow-drafted face and long-stroke picking. As stated above, the remains of the tower project from the corner of the central field, the ruins rising some 4 feet above the surface. We found it trenched about on three sides; as the upper facing stones have been removed we sank a shaft at the north-east angle, finding two courses of plain-faced stones, 16 and 18 inches in height respectively, the lower being a footing resting on foundation work of rude, unfaced rubble. The stones are roughly dressed with the comb-pick. Owing to its ruined condition, the dimensions of the tower could not be absolutely ascertained, but the trenches dug for removing the facing-stones permitted us to gauge the extent of the face at 25 feet, which

must be correct within a foot or two. In this same way the sides were measured to the point where they run under the cemetery at about 21 feet. Along the face we found traces of a gate, 10 feet wide, *i.e.*, a door-socket with jamb, rude sill, and signs of a second jamb. In a shaft sunk a few feet from the corner of the tower rock was found at 20 feet below the surface. The level of the sill is practically that of the adjacent part of the field, and 7 feet above the top of the foundation work below the footing found in the shaft at the angle. We thus have two limits between which the ground-level at the period of the tower must have lain, and for the extent of accumulation above the rock at the same period. If the door-sill indicates this ground-level, then when the tower was erected the field must have had its present level. In other words, on this hypothesis the tower represents the latest construction at this point. If the rude foundation work represents the ground-level of the tower, then we must assume a flight of steps leading down from the gate to a depth of 7 feet. It was impossible to test this theory without removing a dense cactus hedge—an impracticable task. Militating against it is the fact that the two courses found above the rubble are roughly dressed, have no drafts, and were hence probably always under ground. Even on this theory of a lower ground-level we must assume an accumulation above the rock of 13 feet of *débris*; hence in no case can this building be relegated to the earliest period. Unfortunately we had only two examples of the upper facing-stones to study, and only one of these is whole. This measures 20 inches high by 37 long, the drafts are 2·75 inches in width. It is a corner stone. The face-dressing is that described above, but the rough inner surfaces show marks of the comb-pick. No mason's marks were found, nor signs of the unmistakable fine diagonal chiselling of the Crusaders. Mortar is found in the rough core of the wall, as well as clinging to the inner sides of the dislodged stones.

Notwithstanding the absence of peculiar Crusading marks we relegate this tower to the Crusading period for the following reasons:—(1) It occupies a position to which Blanche-Garde probably extended; (2) the door-sill probably indicates its

ground-level, which is the same as that of the present surface of the field, showing that there has been no accumulation of *débris* since the tower was built. It is a matter for regret that the only building found at Tell es-Sâfi, showing well-dressed stones, could not be thoroughly examined, as all but a small part of it is under the cemetery, and as this small part has been molested.

Just outside the ancient city wall is a field east of the north-east plateau and at a considerably lower level. This field is flat, and we thought it might represent an extra-mural occupation, or possibly a cemetery. A few shafts proved the former theory to be correct, pottery being found to the rock. As this occurs at a maximum depth of 7 feet below the surface the occupation must have been slight. Cropping out from the



VII.—Remains of Alignments, Tell es-Sâfi.

surface was found a roughly circular stone, and a scraping of the ground revealed five others, forming two lines running almost directly east and west. The largest is 41 inches in diameter. Careful trenching failed to reveal any others. These stones appear to be parts of two parallel alignments (Cut VII).

No gate has been found in the city wall. From the position of the city it appears likely that the main entrance was either from the south, leading directly into the Acropolis, or on the line of the modern approach to the village at the point *a*, where a bit of the old wall is exposed. As at the latter point rock is found almost immediately under the surface, and the wall utterly gone north of the point *a*, there was no hope of finding a gate. Mr. Macalister observed a road 16 to 18 feet broad, cut in the rock ascending the hill from the west and

striking the road at a point south of the Wely. At this point it seems to turn north, as signs of a causeway appear leading towards the Tell. At a point somewhat east of the spot where this road should strike the city wall we sunk a shaft. The lower part of the wall here consists of stone, the upper of mud-brick. Fallen brick was found to a considerable depth in front of the masonry. We deepened the shaft about 3 feet below the line where the mud-brick ceased, as this line indicated the minimum depth at which the door-sill should be found, and drove a tunnel west. As the tunnel was over 4 feet high, it was impossible that the door-sill should be above the level of its top, and it seemed unlikely that we should fail to strike the jamb of the gate, on the supposition that the sill was below the bottom of the tunnel. After tunnelling some 50 feet, operations were suspended owing to objections made by the Fellâhîn to our tunnelling in the vicinity of the cemetery, as they utterly failed to see that between the tunnel and cemetery there existed a wall 10 feet thick! So once more were our plans frustrated by the practical difficulties existing at Tell es-Ṣâfi.

Since September 7th, when we arrived at Zakariya after our summer's break, our camp has been pitched at four places. The first was under the olive trees near the well. The villagers gave us a hearty welcome, and prepared several feasts in our honour. At first we greatly suffered from the heat. On our return to Tell es-Ṣâfi we used the old camping ground until the approaching storms forced us to change the camp to a more sheltered position at the east of the Tell. Here we remained till November 24th, when we moved to Tell ej-Judeideh. Our experiences of Tell es-Ṣâfi had not been very happy, and on that Friday came a crowning touch. The large jar, which not only represented the only important result from the 11 shafts on which we had expended so much toil, but which was the only large specimen of early pre-Israelite ware we have ever found almost entirely whole, had been hauled up 20 feet to the surface, and safely transported to the camp. A man was detailed to carry it to Tell ej-Judeideh. Fearing some accident on the way, we photographed it the day before leaving. And then the unexpected happened. After the tents had been taken down, and when several camel-loads had gone

off, a little girl perched on the hillside above the camp accidentally loosed a large stone, which came crashing down right on to the precious jar. Of course, it was dashed to pieces, but all the fragments were preserved and packed in a box.

In our week's work at Tell ej-Judeideh we have been tracing the fortifications, having found many towers, a gate, &c. The accumulation of *débris* is not great, but the pottery shows some of the earliest types. On the surface we have picked up a fragment of a Royal jar-handle with the place-name gone, and a fragment of a scarab. The camp is pitched in a hollow, not far from the summit. Owing to the successful diplomacy of Showkat Effendi, the Imperial Commissioner, we have had no trouble with the landowners. We are about two miles from Beit Jibrin, where we hope to do some work next season. On the whole, the health of the party has been good.

TELL EJ-JUDEIDEH, *December 4th*, 1899.

Corrigenda in Previous Reports.

QUARTER.	PAGE.	LINE.	FOR.	READ.
April	95	13 from bottom	scabelled	scabbled.
	„	4 „	revet	rebate.
	99	25	coin-rubbers	corn-rubbers.
	101	11 from bottom	priming	pruning.
	„	8 „	are	is.
	107	21	bronzes	tweezers.
	108	1	in	with.
	„	4	נוף	נוף.
July	176	13, 14	tower	town (thrice).
	179	5	fine	five.
	183	10 from bottom	Aryan	Ægean.
	185	4	שכוה	שוכה.
	„	16	lower	lower line.
	„	8 from bottom	13	9.
	„	5 „	10	9.
	190	12, 22, 31, 36	Key	Rey.
	195	5 from bottom	paces	faces.
	204	3	five	fine.
	„	4	Τεωργίου	Γεωργίου.
October	326	5	שפט	שפם.
	328	12	About a dozen fragments	Fragments of about a dozen replicas.
	333	4	amythest	amethyst.

LIST OF CASTS AND MOULDS.

Received from Dr. Bliss, September, 1899.

Abbreviations:—T.Z. = Tell Zakarîya.
T.S. = Tell es-Ṣâfi.
R.H. = Rubbish Heap at Tell es-Ṣâfi.
M. = Mould.
C. = Cast.

1. M. of weight: [illegible] mottled. White limestone. See before. T.Z.
2. M. of weight: [illegible] mottled. Black red stone. See before. T.Z.
3. C. of No. 2. Note that scaling in sides of letters represents [illegible] on stone.
4. M. of red-stone seal. R.H.
5. M. of white agate seal. R.H.
6. M. of another white agate seal. R.H.
7. Wax impressions of markings on base of 4, 5, 6, with markings on greenish-grey seal, also from R.H.
8. Wax impression of limestone [illegible]. T.S. Depth 10 feet.
9. C. pottery slab. T.Z.
10. C. pottery slab. T.Z.
11. C. jar-handle, Samaritan inscription. T.S. Not deep.
12. C. rude figure of woman and child. R.H.
13. C. green enamelled Ushabti fragment. R.H.
14. C. rude figure of pregnant woman. R.H.
15. C. figure with Semitic features. R.H.
16. C. Mycenæan (?) figure. R.H.
(The last three are hollow.)
17. C. head of Silenus. R.H.
18. C. rude horse and rider. R.H.
19. C. small mask, fragment. R.H.
20. C. of four fragments of slabs, Assyrian (?). R.H.
21. C. of three fragments of figures, one holding asp to breast, Cleopatra (?), one holding asp to thigh; one of Alexis with plaster head. R.H.
22. C. jar-handle, with figure hunting a stag. R.H.
23. C. in red wax from stone mould of bell, showing clappers.
24. Ditto in plaster, clappers not shown. R.H.
25. C. rude woman head. T.S. Depth about 20 feet, on level of bases of monoliths.
26. C. scarabs, 1–4, Plate VIII. July *Quarterly*. T.Z.
27. C. scarabs, 5–8, same plate. T.Z.
28. C. five scarabs. T.S.
29. C. five Babylonian gems. T.S.

30. Painted casts of four Egyptian amulets ; one bone Phoenician figure ; one wooden object. T.S.
31. Wax impression of Hebrew inscription on jar-handle from R.H. Sent before. As sharp as possible, considering state of original.
32. Impression of bit of clay stamped with seal. R.H.
33. Two painted casts of grotesque heads in blue and yellow glass, with one obscene figure, same material. R.H.
34. C. small Greek head. R.H.
35. C. small archaic Greek head. R.H.
36. C. fragment of stone corbel with head, wearing lion's skin. R.H.
37. C. fragment of statuette. R.H.
38. C. rude head. T.S. Depth, 10 feet.

Sixty-four moulds and casts in all.

THE ROCK-CUTTINGS OF TELL ES-SÂFI.

By R. A. Stewart Macalister, M.A.

The extraordinary energy displayed by the ancient inhabitants of Tell Zakarîya in hollowing the hill that bore their stronghold —an energy shared by their contemporaries at Atraba, Beit Jibrin, and other places in the neighbourhood—arouses expectations of the existence at Tell es-Sâfi of works similar to those I have already described in the *Quarterly Statement* (1899, p. 25). This expectation is largely disappointed ; the rock-cut chambers of Tell es-Sâfi have not nearly the interest of those at Zakarîya, and a detailed account of them would be of little value for a scientific discussion of the subject as a whole. I hope to show, however, that the remains of ancient rock-working at Tell es-Sâfi are by no means devoid of interest or of importance, and therefore propose to devote the present paper to a consideration of the principal examples, dividing them into groups similar to those into which I classified the Zakarîya cuttings in the paper already referred to.

Chambers.

The chambers of Tell es-Sâfi are of small interest, and I shall therefore clear the ground by cursorily describing them first. Not reckoning about half a dozen small chambers

scattered over the surface of the Tell, partly natural, and still devoted to their probably original purposes of fodder-stores, these chambers are all to be found on the southern spur of the long straggling hill, and comprise:—

I–III.—Three dome-shaped roughly-circular chambers, with staircases in the side; in all the roofs have long since fallen in, and every feature, including all the steps in the staircases, has become defaced by the weather.

IV.—A very fine approximately circular chamber, perfect, with a rather flat-domed roof, beautifully cut. It is so full of straw, stored for fodder, that satisfactory dimensions cannot be taken. There is an opening in the roof, now blocked: access is now gained by a doorway cut through a perpendicular face of rock immediately behind which is the chamber. This doorway may be modern—a modern wooden door has been fitted into it. There is another small chamber close by of no importance, and also a passage leading into the rock opening from the perpendicular face just mentioned. This runs but a short way and is then blocked.

V.—A dome-shaped columbarium, with three rows of triangular loculi in the walls.

VI.—A damaged chamber, which serves as vestibule to an enormous room, 60 feet long by 20 feet across (measured by pacing). The height is about 20 feet. With the exception of a chamber at Atraba, which is 75 feet in diameter, this is the largest rock-cut chamber I have as yet found.

VII.—In the lonely moorland south of the Tell, in a most unexpected situation, a funnel-shaped cistern, 28 feet deep, and at the bottom 25 feet 6 inches across.

There has been a group of similar chambers in a low hill across the valley to the south-west, but some are fallen in, others blocked up, and I could make nothing of them.

Scarps.

In two or three places vertical scarps have been cut in outcrops of rock—from 5 to 10 feet long and 1 to 2 feet high. These I hardly think are anything more important than small quarries, though the amount of stone removed from each is so

minute as hardly to seem worth the trouble of quarrying: an equal quantity of equally serviceable material might be picked up loose in many parts of the Tell. I have, however, no other suggestion to offer. Under this head may be noticed an ancient causeway, scarped through the outcropping rock, on the west side of the south spur of the hill. It is 16 feet broad at the top and 2 feet to 2 feet 6 inches deep, but towards the bottom it widens and shallows (like a river running through loose sandy ground), finally disappearing at the bottom. Three ancient olive trees growing in its middle are a witness to the length of time this road has been disused.

Presses.

Like other ancient sites, the place now represented by Tell es-Sâfi was well provided with rock-cut apparatus for pressing wine, olives, &c. I have noticed six, four of which are here illustrated (*see* p. 32).

The first (Fig. 1) consists of a floor of rock, roughly rectangular, about 42 feet long by 16 feet 8 inches broad. It has been smoothed level, and sunk to a maximum depth of about 5 inches below the surrounding rock outcrop. A little less than half the surface is covered by a thin coating of soil which conceals the rock; the remainder is exposed, and shows 12 cups scattered irregularly over its surface.

Except the cup lettered E none show any drains leading into or out of them, and therefore liquid that ran into them must have been baled out by hand; in my ignorance of the technical details of the processes which took place at presses such as this, I can but conjecture that the pressed material was allowed to stand in these cups till the coarser part had sunk to the bottom, and that the finer liquid was then skimmed from the top and poured into the large vat; or in the case of cup E allowed to run through the channel provided, and indicated in the plan. It is rather hard to account for cups B, C, and I, which are wholly or partly outside the sunk area. Under the rock surface is a large natural cave, the mouth of which has been enlarged by scarping for a depth of 7 feet; the outline of this artificial portion is indicated in the plan by

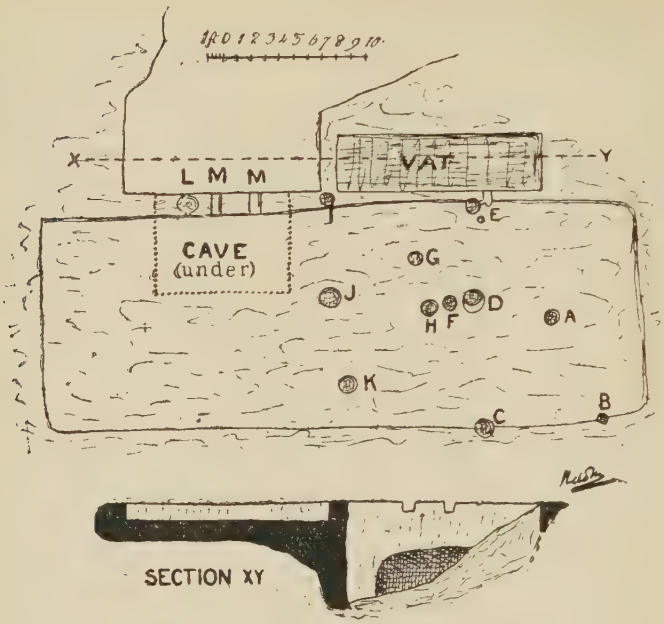


Fig. 1.—Rock-cut Press, Tell es-Sâfi.

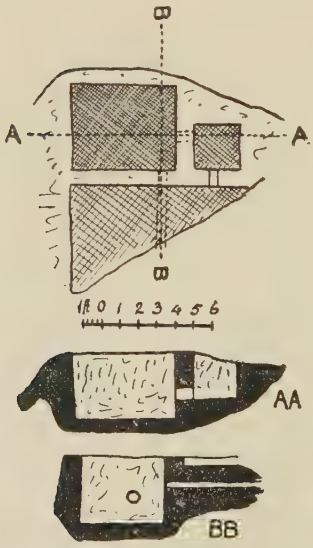


Fig. 2.—Series of Rock-cut Vats, Tell es-Sâfi.

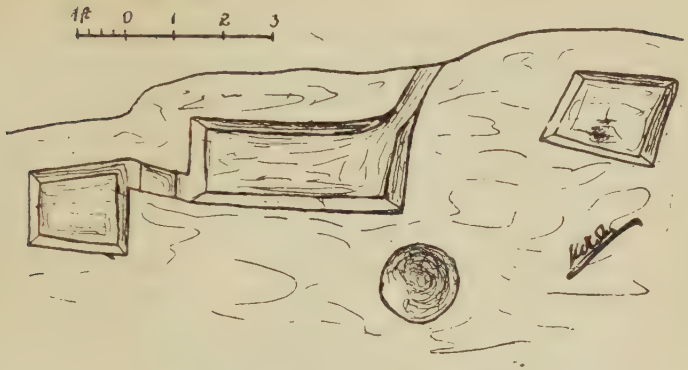


FIG. 3.—Rock-cut Vats, Tell es-Sâfi.

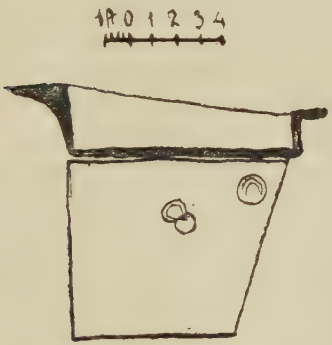


FIG. 4.—Rock-cut Vat with Cups, Tell es-Sâfi.

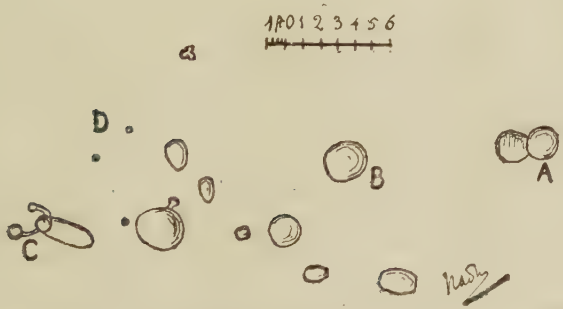


FIG. 5.—Normal Group of Cup-marks, Tell es-Sâfi.

dotted lines. It seems probable that when the season's work was over the press was cleaned and the refuse allowed to run through the two channels, MM, down to the cave below. I cannot account for the flat saucer mark denoted L.

The plan and sections (Fig. 2) sufficiently show the details of the second press I have selected. It is situated on the brow of the hill above the southern portion of the village. Its chief interest lies in the fact that the three vats are paved with a mosaic floor of rough white tesseræ set in plaster. The sides have also been plastered. I have seen a mosaic floor in one other press only: it is in the garden near Jerusalem known as "Abraham's Vineyard." The drains are lined with pottery.

The third (Fig. 3) consists of two shallow vats connected by a channel. At each end of the channel the rock rises slightly so as to form a bar: in this case I suppose the fruit was pressed in one vat, and the juice passed into the other by hand, the lees being allowed to settle in the hollow between the bars. There is a third shallow vat and also a cup in the rock which seem to have no connection with the system.

The fourth (Fig. 4), situated in the deserted moorland at the extreme south of the Tell, is a large vat, in the floor of which are two cup-marks. No doubt the purpose of these was the collection of the last dregs of the liquid. One of the cups has a curved channel associated with it, obviously to increase its collecting power.

Cups.

We have already met with cases of cups associated with presses, but independent cups and groups of cups are scattered in profusion over the whole of Tell es-Sâfi wherever an outcrop of rock gives an opportunity for their formation, and it is necessary to devote a section to their consideration.

Fig. 5 represents a typical group of cup-marks of ordinary size. They are of two classes: deep circular bowls, generally speaking in the shape of a half melon cut across the long axis, and shallow saucers.[1] In the group shown, example A belongs

[1] There are besides a few anomalous forms, such as H (a cylinder) and D, Fig. 1; Fig. 6; and the horizontal cup, Fig. 7

to the former type: it is 1 foot 6 inches deep, 1 foot 9 inches across; example B, which is 2 feet across and only 3 inches deep, is an exaggerated specimen of the second.

That the practice of making cup-marks in rocks is of great antiquity in Palestine as elsewhere I have already shown by reference to a discovery made during the excavations at Zakarîya. Under 10 feet of *débris*, the lowest 3 feet of which contained pottery comparable with that of the second city at Tell el-Hesy (1500 B.C.), a cup was found marked in the rock. This gives a minor limit of date for the Zakarîya example. That all cups date back even to this period cannot, of course, be as yet asserted, as so far no other light has been thrown on their epoch.

If their date be obscure, their purpose is even more so, and in Palestine they are as much a puzzle as in the rest of the immensely wide area of their range. Here, as elsewhere, the present is often a valuable illustrant of the past, and in the hope of discovering some tradition to throw light on them I have asked about them of several of the more intelligent Fellahîn with whom I have come into contact. The majority of those of whom I inquired said they were "for water," obviously a mere fatuous guess; but two much more satisfactory explanations were at last elicited. These were:—First, that they were used for watering cattle; and second, that they were intended as small olive-presses, for obtaining a limited quantity of oil required for immediate use.

That some such utilitarian purpose was intended in many cases seems most probable. Large cups, 3 feet 8 inches across by 2 feet deep are the dimensions of one at Tell es-Sâfi, are found near cisterns, and may well be intended to be filled for the use of cattle. Moreover, many groups, such as that already figured (Fig. 5), are found in the neighbourhood of places, which in all probability have always been olive plantations. Some, such as A in Fig. 5, have a levelled plane of rock, slightly sunk below the surrounding surface, attached to their sides, and grooved with channels to direct liquid into them. In others, such as C in the same figure, two or three cups drain into another at a slightly lower level. Often separate cups are

found, such as Fig. 6, with a channel of one shape or another, draining the neighbouring rock surface into the cup. That a few olives should be pressed on the rocks, so that the oil should run down the channels into the cup, is perfectly conceivable.

But there are two cases in which both these explanations,

Fig. 6.—Cup-mark with Drain, Tell es-Sâfi.

as well as any other utilitarian explanation that can be formulated, seem absolutely excluded. When a cup is cut in a vertical surface of rock it will obviously hold no liquid of any kind. After long search I at last discovered one example of a vertical-face cup on Tell es-Sâfi.[1] The rock in which it is cut has been

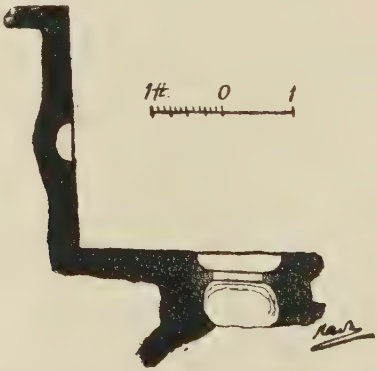


Fig. 7.—Section of Rock Surface with vertical Cup-mark, Tell es-Safi.

scarped, and there is a cup of unusual form in the horizontal surface under the scarp; the bottom of the latter breaks into a natural cave under the rock. In Fig. 7 a section of the rock and both cups is shown.

In the second place no utilitarian purpose seems to meet the

[1] Since the above was written I have found another.

case of the extremely minute cups which are to be seen at Tell es-Sâfi in considerable numbers. In the group shown in Fig. 5, two, lettered D, are respectively $3\frac{1}{2}$ and $2\frac{1}{2}$ inches across. What advantage would be gained in adding such insignificant receptacles to a collection of olive-presses (the cattle-watering theory

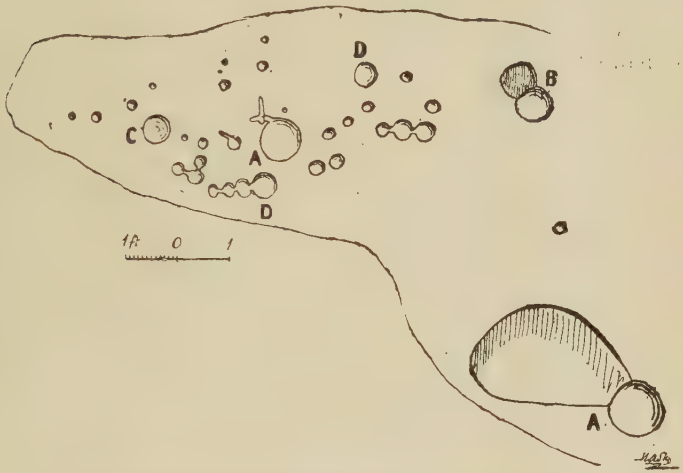


FIG. 8.—Rock Surface with minute Cup-marks, Tell es-Sâfi.

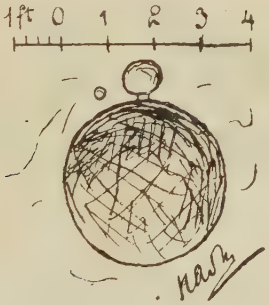


FIG. 9.—Large and Small Cups in association, Tell es-Sâfi.

is here excluded by the shallowness of the cups)? It may be answered that these are unfinished; but is the same to be said of the great group (Fig. 8)? Here the cups lettered A are 1 foot across; that marked B is $8\frac{1}{2}$ inches; C, 7 inches; D, 5 inches; and these by themselves may be olive-presses—

two are provided with the channelled sinking. But scattered among them is a large number of small cups, ranging from 3½ inches to 1 inch in diameter, some connected by channels, whose purpose seems inscrutable. Again, consider Fig. 9; this consists of the large cup, 3 feet 8 inches across and 2 feet deep, to which reference has just been made. Beside it is one of smaller size, 7 inches across, 7 inches deep, connected with it by a channel 2 inches deep. Some explanation might be found

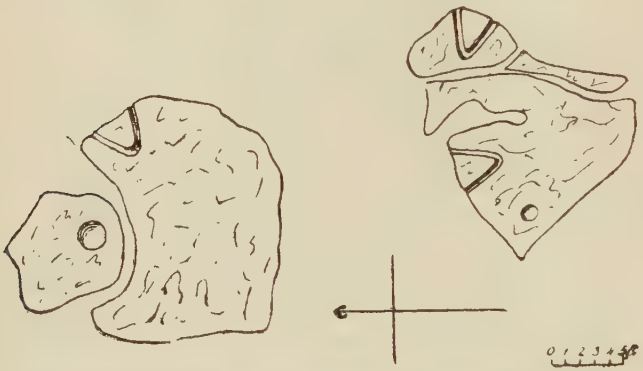


FIG. 10.—Rock Surfaces with Cups and "V-marks," Tell es-Sâfi.

FIG. 11.—Sketch of "V-mark."

for these two; but what are we to make of the small independent cup, 3 inches across, 1 inch deep, beside them?

Nothing has as yet come under my notice analogous to the cups with concentric circles, so familiar to northern archæologists.

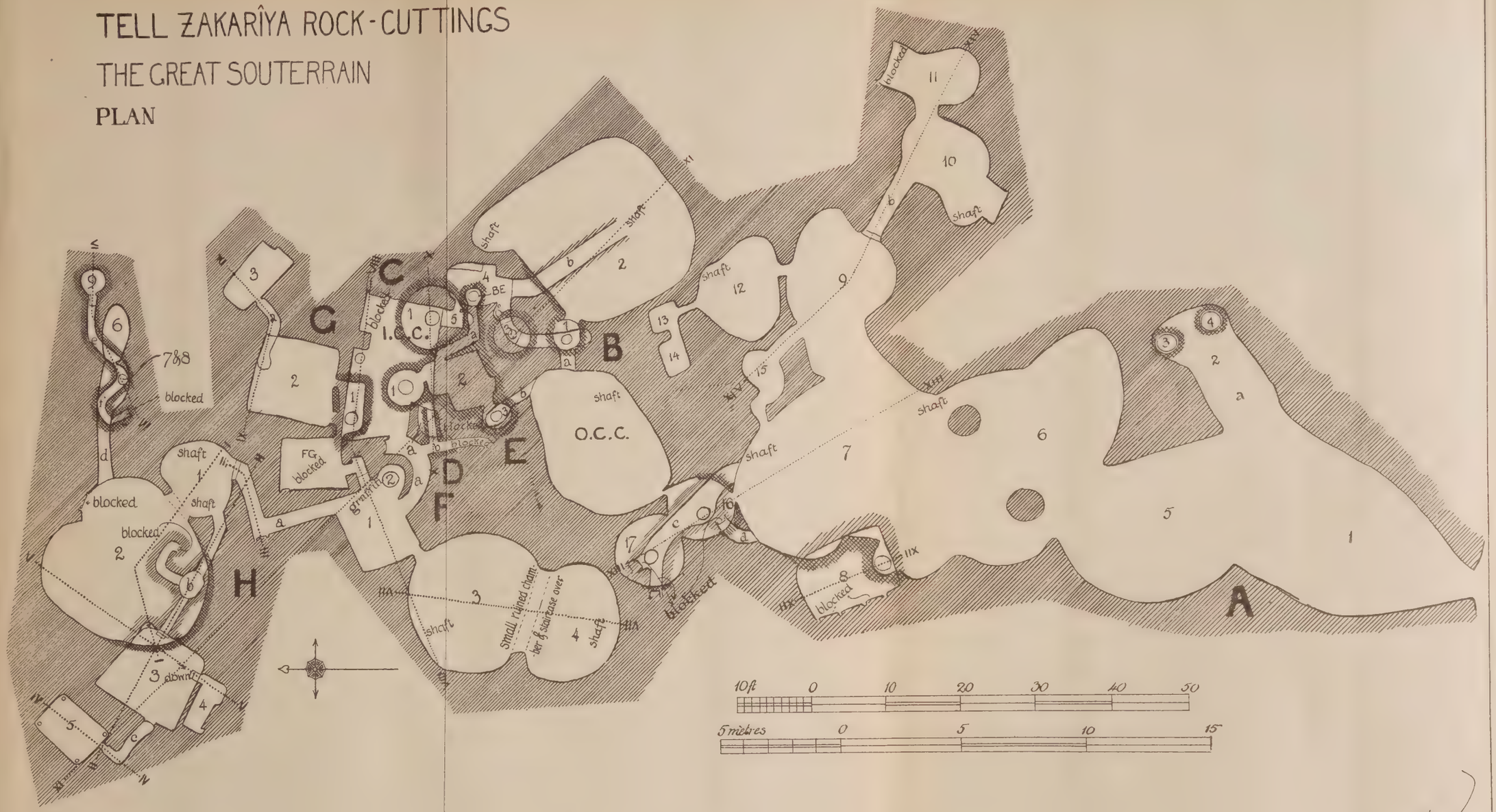
V-marks.

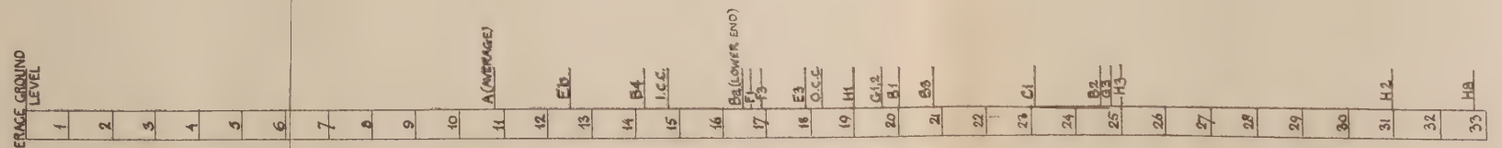
Lastly, I have to refer to a set of three marks, quite unique so far as my experience goes, to be found on the saddle of the

TELL ZAKARÎYA ROCK-CUTTINGS

THE GREAT SOUTERRAIN

PLAN





SCALE, IN FEET, OF THE FLOOR-LEVELS OF THE PRINCIPAL CHAMBERS

Photo-Lithographed & Printed by James Akerman, 9 Queen Square W.

southern spur of the hill where so much interesting detail is collected together. They consist of V-shaped grooves cut on the edges of three adjacent rock-outcrops. It cannot be an accident that the three are identical in shape and size; but (unless a wild guess which occurred to me, that they might be some sort of rude sun-dial, have anything to recommend it) I have no light to throw upon them. The Rev. Père Vincent, to whom I showed them, told me that nothing similar was known to him.

FURTHER NOTES ON THE ROCK-CUTTINGS OF TELL ZAKARÎYA.

By R. A. Stewart Macalister, M.A.

The Great Souterrain.

In the issue for January 1899 of the *Quarterly Statement*, pp. 25–36, I submitted a catalogue of the remarkable series of chambers and groups of chambers with which the sides of Tell Zakariya are pitted. I now wish to supplement that article by the results of further study of these and similar excavations. My original design was to make plans and sections of the entire series, but on consideration I decided that such an undertaking was hardly worth the great expenditure of time it would involve, and that a better course would be to confine my attention to a few typical specimens.

On examination, the great system numbered XXI in my catalogue proved to be far more elaborate than I should ever have expected, and I considered it worthy of a survey as nearly as possible exhaustive, and of treatment in a separate article. The present part of this paper, therefore, is entirely devoted to this excavation. For a future part are reserved some miscellaneous notes on other rock-cuttings described in the previous communication, and also an account of a few others that came to my notice after it had been printed,

together with observations on the archæological questions to which these excavations give rise.

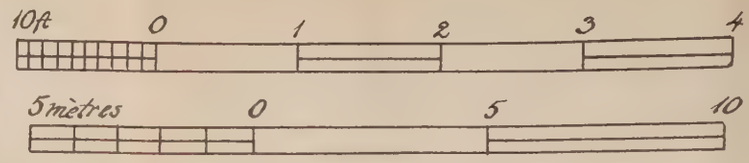
The entrance to this cutting is on the shoulder of the hill, just below the level of the summit plateau, at the north-eastern angle of the Tell. The rock is a soft chalky limestone, very easily worked, and overlaid by a harder stratum which lies immediately under the vegetable soil, and in the neighbourhood of the entrance crops out to the surface.

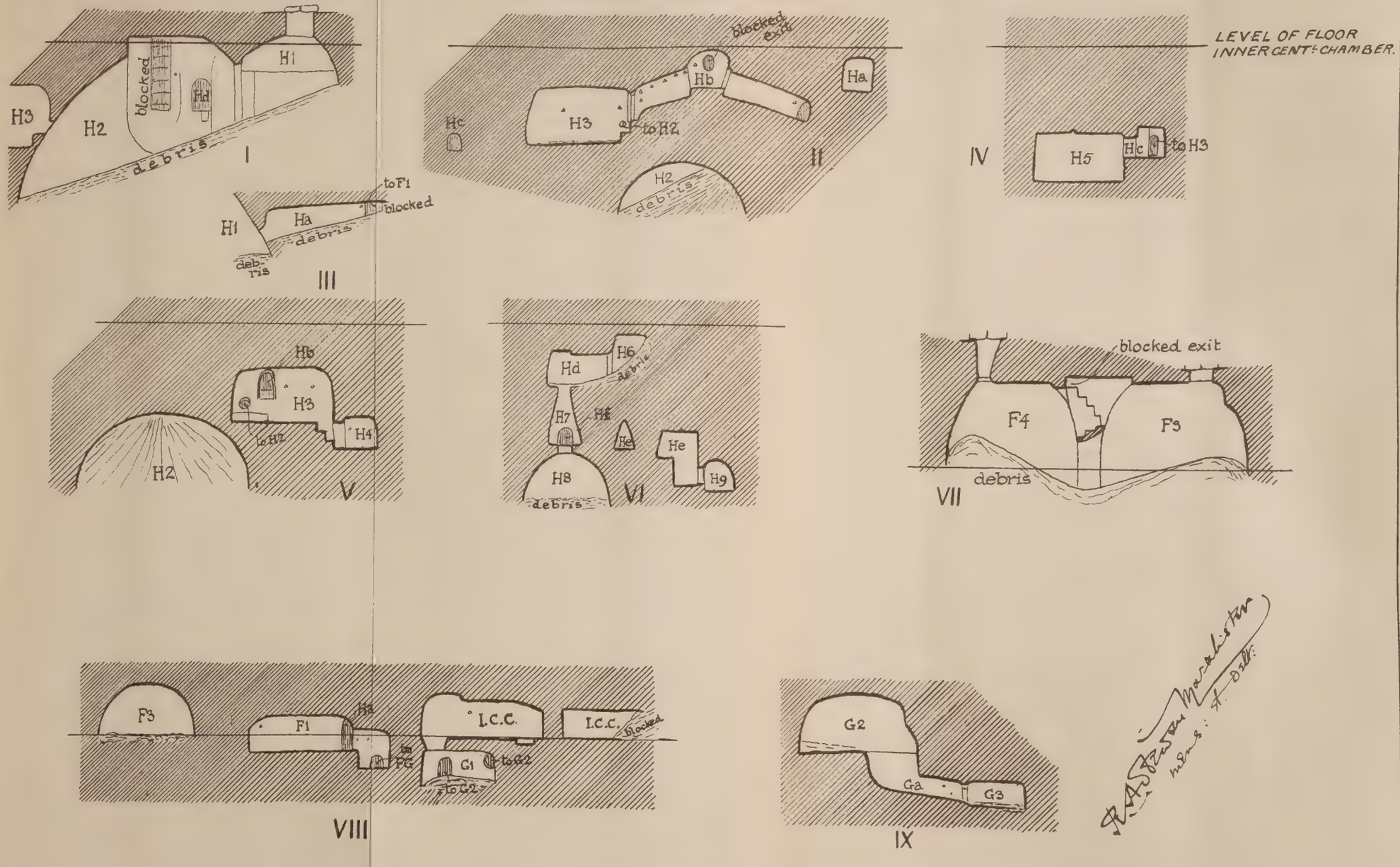
The principle which I have adopted in numbering for reference the various chambers and passages will be seen from the Plan (Plate I). There are two large apartments, from which various systems of chambers radiate; these I have called respectively the "Outer" and "Inner Central Chamber" (lettered O.C.C. and I.C.C. on the plan). From the Outer Central Chamber lead off three systems, denoted by the index letters A, B, and E. A is the group first entered by a visitor. From the Inner Central Chamber there lead off eight exits; a shaft (now blocked) originally leading to the ground level; the entrances to the inner ends of systems B and E; entrances to other systems indexed C, F, G; and two passages, both blocked, which are close together, and which it is convenient to treat as one system, lettered D. Beyond F, at the extreme end of the series, is another system, lettered H. These systems are all independent of one another with the exception of B and E, and F and G, each of which pairs have a chamber in common. These common chambers are denoted respectively B E and F G; the remaining apartments are distinguished by the index letter of the system to which they belong and a number, the associated passages by the index symbol of the system and a letter. The sequence of numbers, it will be seen, has reference to the positions, not to the relative sizes of the chambers.

I have endeavoured, by the use of cross-hatching to denote chambers on lower levels, to make the plan as intelligible as possible; it is hoped that the scale of floor levels will be found useful in elucidating its intricacy. The floor level of the Inner Central Chamber has been taken as a datum, and marked by a thick black line on all the sections.

TELL ZAKARÎYA ROCK-CUTTINGS

THE GREAT SOUTERRAIN: SECTIONS I-IX





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SYSTEM A.—*From the Entrance to the Outer Central Chamber.*

The southern end of this system was apparently a natural cave, which formed the nucleus of the excavation. The little hole, about 1 foot 6 inches high and 2 feet wide, was probably the original entrance. The pick-marks cannot here be studied, as the roof of A 5 has fallen in, and the sides of all the southern chambers have been disintegrated by the weather, so that it is impossible to say how much is artificial. I suspect that A 1 and A 5 are both natural, at least fundamentally. The passage to A 2 is, however, artificial. In the floor of A 2 are two circular holes, each communicating downward with a small dome-shaped cell, numbered A 3 and A 4. A 3, which I had cleared out, is 3 feet 1 inch in diameter at its floor level, 4 feet 11½ inches high. The entrance-hole is 1 foot 7 inches across, 7 inches deep. In the floor of this cell, near the wall at the point W. by N. from the centre, is an opening 1 foot 9 inches across, 7 inches deep, giving access to a miniature cell 1 foot 5 inches high and 2 feet 3 inches in floor diameter (*see* the section, Plate IV, Fig. 1). This curious feature is almost an anticipation of the singular double well (H 7 and 8) at the extreme inner end of the excavation. Other depressions in the floors of chambers are to be found in E 2 and in the Inner Central Chamber. In the sides of the cell A 3 are four little niches, in this case no doubt intended for footholds to assist in climbing out. Such niches (*see* Plate IV, Fig. 8) are generally about 3 to 6 inches in height, and are scattered in profusion over the walls of most of the chambers in the souterrain. Their purpose is often by no means obvious.

Above A 4 is one of the many shafts which formerly led upwards from all the large rooms to the surface of the ground. They occur in A 2, 5 (?), 6, 7, 8 (two), 10, 11, 12, *d*; Outer Central Chamber; B 2 (two); Inner Central Chamber (two); F 3, 4; H *a*, 1 (two), 2, *b*, 6 (?). Some (such as H *b*) were certainly ancient approaches to the excavation, but others were probably merely openings made for convenience in removing the stone in quarrying out the apartment. All (except that from A 8, which is now the most convenient approach to the

souterrain) are blocked with large stones and turfed over. A 4 is nearly choked with the earth that has filtered through the shaft above it.

The two columns in A 6 are buried nearly to their tops in the fine dust to which the chalky limestone has disintegrated. For the practice of leaving a column to support the roof of a chamber, compare cutting No. XVIII (*Quarterly Statement*, 1899, p. 31).

A 7 is chiefly remarkable for a peculiar symbol cut in the wall at the entrance to the passage leading to A 15, at the left of the door (*see* Plate IV, Fig. 2, i, where it is illustrated).

A 8, a room about 14 feet by 7 feet 6 inches, is reached through a circular hole in its floor, 1 foot 7 inches across and 4 inches deep. Two doorways, both now blocked, apparently communicating with the outer air, probably formed the original entrance; the present entrance being most likely intended as a means of access from this chamber to the more remote apartments of the system. Beside the hole is lying a stone which probably was intended as a stopper. Of the two blocked doorways, that nearer the present entrance leads into a passage trending upwards: the other leads into a small domed cell. A study of the marks made by the rather narrow chisel with which this chamber was cut out appears to indicate that the central passage was made first and expanded into the chamber; the domed cell was formed independently, and the communication afterwards broken through. There are two small niches in the wall of this chamber.

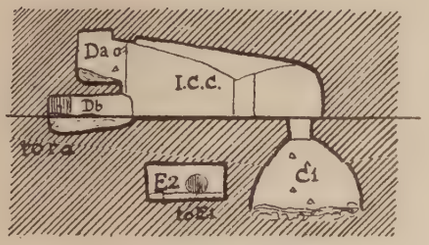
In the western corner of A 9 a kind of square recess has been formed (resembling a shallow cupboard) high up on the wall.

At the inner end of the passage A *b*, which is 9 feet 6 inches long, is a niche on the right hand side, with a rude boss-like shelf in it. The maximum length of A 10 is about 14 feet. The tops of the walls have been cut away (or disintegrated?), as shown in the section (No. XIV). The hard stratum of rock forms the roof.

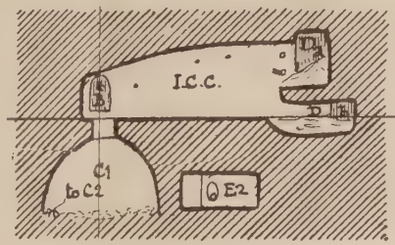
A 11 is nearly full of fallen earth, and possibly entrances to unknown chambers may lead off from some concealed portion

TELL ZAKARÎYA ROCK-CUTTINGS

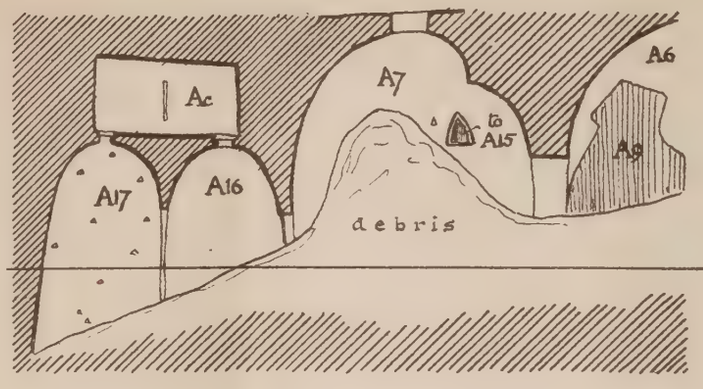
THE GREAT SOUTERRAIN: SECTIONS X-XIV



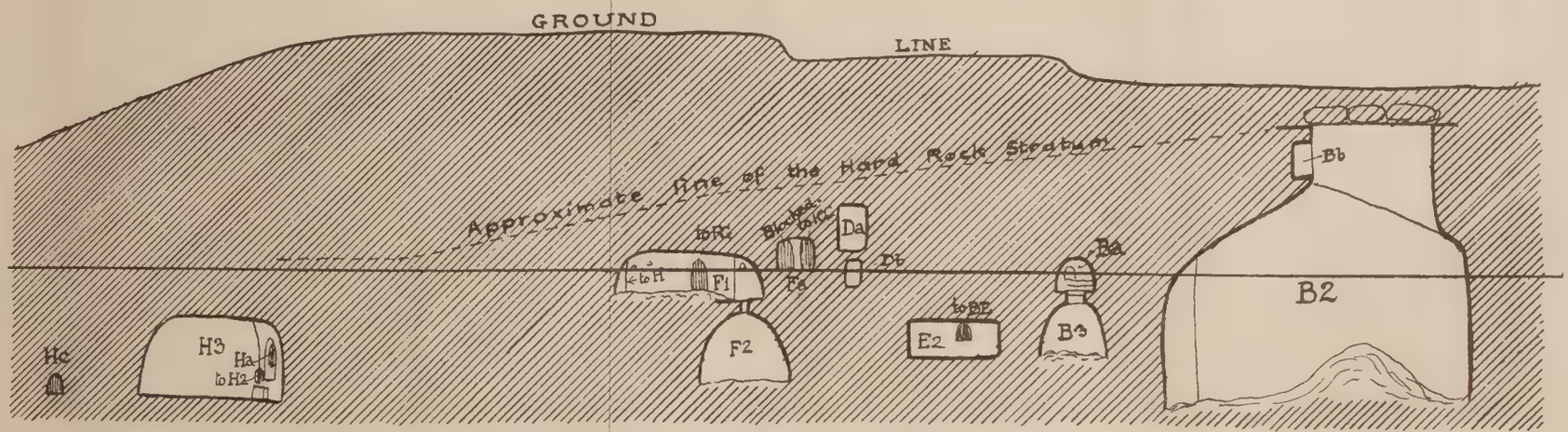
X (NORTHWARD)



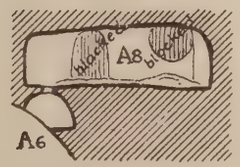
X (SOUTHWARD)



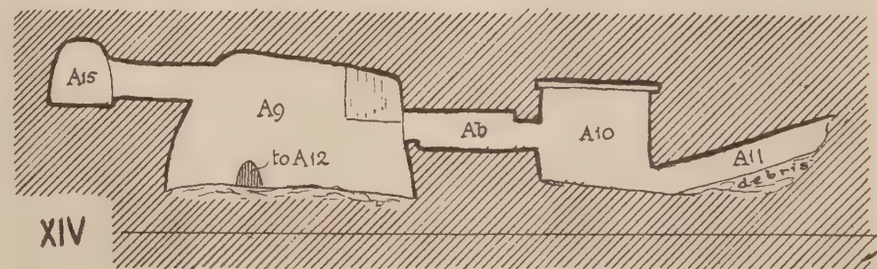
XIII



XI



floor-level, I.C.C.



XIV

10ft XII 0 10 20 30

5 mètres 0 5

J Akerman Photo-litho London

of the walls. A 12 is remarkable for being covered with a rough grey sandy plaster; it is 8 feet 6 inches high, and 16 feet 7 inches in maximum diameter. A 13, 14, and 15 are extremely small cells from 4 feet to 5 feet across, the two former being so much blocked with earth that entrance is difficult. There may be a passage leading out of A 14, but owing to the earth it is impossible to say definitely if this be so.

The passage A *d* runs inwards and upwards, but is carefully blocked at about 5 feet from its end with large stones. It is 2 feet across, 3 feet 6 inches high.

The twin chambers, A 16, 17, are remarkably well cut, smooth sided, domed chambers. A 17 has about 20 small niches cut in the sides. Above these chambers runs a passage, A *c*, of some interest; it enters the wall above the level of the entrance to A 16, and runs in a north-westerly direction for about 6 feet. There are two bolt-holes just inside the entrance, one of which is provided with a chase or groove along which the end of the bolt is conducted to the hole. The chase is in the inner side of the bolt-hole: that there was no door, but merely the barrier provided by the bolts, is indicated by the absence of a reveal. There is a further slight bend to the west in the direction of the passage, after which it runs 10 feet; just at the bend is a curved bay on the west side of the passage, in the floor of which is the circular hole communicating with the roof of A 16. The hole is well-cut, 1 foot 5 inches in diameter in clear, with a reveal of $3\frac{1}{2}$ inches to hold a stopper; the depth of the hole is $8\frac{1}{2}$ inches. The hole communicating with A 17 is similar in character. Between the two are indications in the walls of the passage of a second barrier—on one side is a bolt-hole, on the other a vertical chase-mortice. Beyond the second well-hole the passage bifurcates, but both branches are blocked. The left hand branch shows indications of a third barrier, with a chase directed towards the free end of the passage.

Outer Central Chamber.

The maximum diameter of the Outer Central Chamber is 20 feet 9 inches. The walls retain fragments of plaster

indented with meandering lines, whose purpose is not easy to assign. They are almost too systemless to be considered as ornament; perhaps they were merely meant as a key to hold an outer coat of plaster, which has now disappeared. They seem to have been traced with a blunt notched stick in the plaster when fresh. A specimen is shown (Plate IV, Fig. 3). On the south wall below the shaft is cut a mark of similar type to the triangular figure in A 7 (Plate IV, Fig. 2, ii); over the entrance to System B an unintelligible series of scratches is marked on the wall. There are about 25 small niches scattered irregularly over the walls of this chamber. There are three exits: one to System A, 1 foot 9 inches high, 2 feet 3 inches across, 10 inches thick; another to B, 1 foot from the ground, 3 feet 7 inches high, 1 foot 9½ inches across; the third to E, 5 feet 10 inches from the ground, 2 feet 3 inches high, 1 foot 9 inches across.

System B.—*From the Outer to the Inner Central Chamber.*

A passage, 4 feet long, from the Outer Central Chamber meets the main gallery of this system at right angles. In this passage are two steps upwards, one of 1 foot at the entrance and one of 10 inches half way along. The main gallery runs north and south from the end of this passage, but the southern portion extends for 3 feet only. At the intersection is a circular well-hole that gives access to a small domed cell, B 1, 3 feet across, 2 feet 7½ inches high. This cell in its turn gives admission to B 2, the largest chamber in the souterrain, the maximum diameter of which is no less than 30 feet 4 inches. The entrance from B 1 is 2 feet 6 inches high, 2 feet across, and 4 feet 6 inches above the present level of the *débris* on the floor of B 2; a niche has been cut below its sill to serve as a foothold. B 2 has been cut out by irregular strokes of a rather wide-edged pick, and is coated with the same coarse grey plaster that we found in A 12. There were two shafts communicating upwards, that in the centre being of unusual size.

In the main gallery, B *a*, occurs another well-hole, similar to that which gives access to B 1. This hole affords admission

to B 3, another domed cell, 3 feet 4 inches in height above the present level of the *débris* on the floor and 5 feet in diameter, The opening is 1 foot 2 inches across, and, like others we have already found, is revealed for a stopper. A groove is cut between the reveal and the edge of the step in which is the well-hole, no doubt to facilitate raising the stopper, the top of which must have been flush with the surrounding floor (*see* Plate IV, Fig. 4). The floor is covered with earth, possibly concealing the entrance to other passages.

At the point where this well-hole is found the gallery bends through nearly a right angle, and rises by a series of steps to its destination. Close to the end of the gallery, on the left hand side, is a domed semicircular recess, 1 foot 4 inches broad, 2 feet 9 inches high, in the floor of which is a hemispherical cup-shaped hollow 6 inches deep; close by is a smaller hole resembling a socket for receiving the spindle of a turning door. The jambs of the entrance at the end of the gallery have notches cut out of them (*see* Plate IV, Fig. 5) which are difficult to explain, unless they were in some way intended to secure the woodwork of a door frame. The height of this passage, B *a*, at the southern end is 2 feet; in the middle it rises to 2 feet 3 inches at the walls, 2 feet 10 inches in the centre of the axis (the roof being cut in a barrel shape); at the inner end it is 3 feet 4 inches high.

B 4, to which the gallery gives access, is 9 feet 8 inches in maximum diameter. It contains a well-hole, 1 foot 6 inches across, not revealed, giving access to the small cell B E. Close by the door from the gallery is an entrance 2 feet 9 inches high, 2 feet 8 inches across, and 1 foot 11 inches above the ground which admits to a passage 17 feet 6 inches long; this ends abruptly in the side of the shaft above the middle of B 2. In the eastern side of B 4 a raised ledge or bench 4 feet long, 11 inches from the ground, has been left by the excavators.

B E is a tiny domed cell, the floor of which is much cumbered with *débris*, 2 feet 3 inches across at the spot where measurement is possible. B 5 is 4 feet 2 inches long, 2 feet 4½ inches across, and 3 feet high above the soil strewn on its floor.

Inner Central Chamber.

This fine room is an irregular quadrilateral with one angle not cut out, about 18 feet long and 10 feet across. A projecting mass of rock has been left uncut in the centre of the northern side. To the west of this is a cylindrical depression in the floor, about 1 foot 6 inches across and 11 inches deep: it may have been intended to make a series of chambers starting from this point, though the project was abandoned almost as soon as started. The hard covering stratum of rock, referred to at the outset, forms the roof of this chamber: the ceiling is therefore irregular and shows no pick-marks, but the walls show that the room was worked out with a narrow chisel, except in the blocked passage leading from the north-east corner, which was at least finished off with a 2-inch chisel. Several niches are cut in the walls. There is some grey plaster still remaining all round the walls to a height of 7 inches from the floor.

System C.—*Beneath and South of the Inner Central Chamber.*

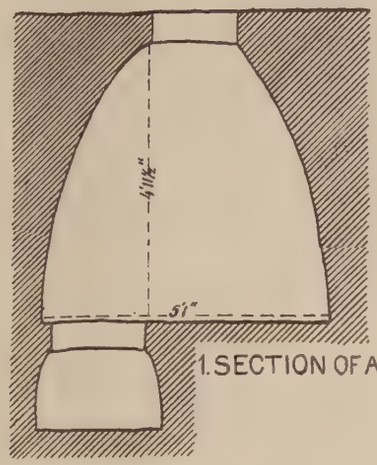
Just inside the door from B 5, in the floor of the Inner Central Chamber, is a well-hole 1 foot 2 inches deep, 2 feet in diameter. This gives access to a domed chamber, C 1, 5 feet 9 inches high above the accumulation of earth on the floor, 8 feet 6 inches in diameter. Four footholds are cut in the northern side of the cell. On the southern side the top of the doorway to another chamber just appears above the earth on the floor, but owing to the obstruction it cannot be entered. The further extent of this system is therefore unknown. I have not indicated this second chamber in order to avoid complicating the plan over-much. The chamber C 1 has been cut out very smooth with a fine ⅝-inch chisel, and its walls have been smoothed down with a comb or drag. I have not observed marks of this process elsewhere in the excavation.

System D.—*From the South-west of the Inner Central Chamber.*

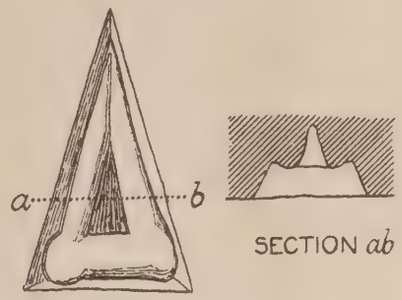
Two passages leading from the south-west of the Inner Central Chamber, one above the other, are here grouped

TELL ZAKARIYA ROCK-CUTTINGS

THE GREAT SOUTERRAIN: DETAILS

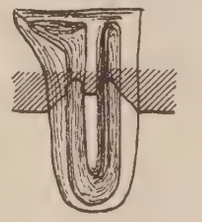


1. SECTION OF A3

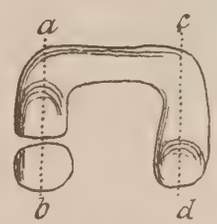


i. IN A7

SECTION *ab*



ii. IN O.C.C.

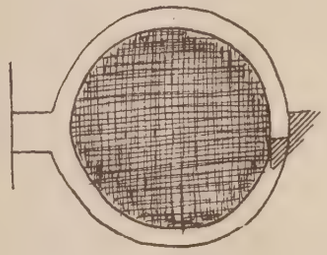


iii. IN Fa

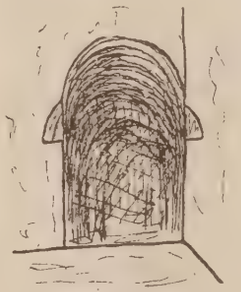
SECTIONS
ab | *cd*

2. FIGURES CUT ON THE WALLS

3. SKETCH OF PART OF THE PLASTER MARKING IN O.C.C.

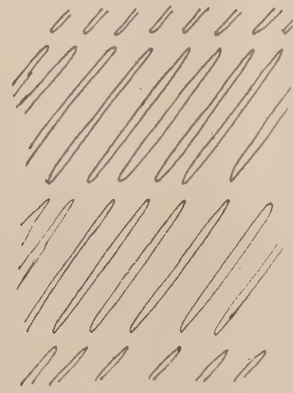


4. ENTRANCE TO B3

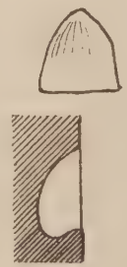


5. DOORWAY FROM B4 TO B3

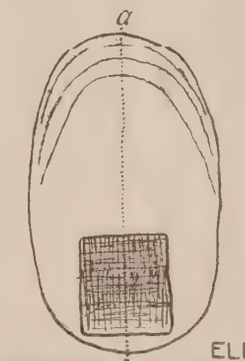
6. MARKS ON THE STAIRWAY IN F4.
LEFT RIGHT



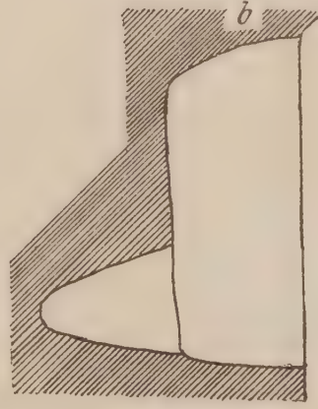
7. PICKMARKS IN H2



8. NORMAL WALL NICHE

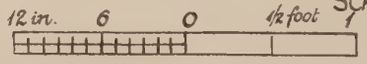


ELEVATION

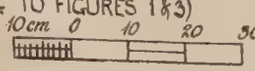


SECTION *ab*

9. NICHE IN E2.



SCALES (NOT APPLYING TO FIGURES 1 & 3)



R.A.S. Macalister

together. The destination of neither is known. D *a*, the upper, runs inward for 3 feet 9 inches and then turns through a right angle; it advances 5 feet further, but is blocked with earth. It probably led to the surface. There are holes for two bolts or barriers at the inner end, one above the other. Chases are cut for the upper pair of holes on the right hand side, for the lower pair on the left; both are directed inwards. D *b* is sunk a few inches below the level of the floor of the Inner Central Chamber. It runs parallel with D *a* for about 5 feet, and then joins a gallery proceeding from System F, which I have three times attempted to pass through without success, as it is partly blocked with earth.

System E.—*From the Outer to the Inner Central Chamber.*

Returning to the Outer Central Chamber, we enter E by the doorway already described. A passage 2 feet 10 inches in length leads to a small domed cell, 2 feet 8 inches across and 2 feet 8 inches high, in the centre of the floor of which is a well-hole 1 foot 6 inches across. This passage displays narrow chisel marks in its walls. On the right side (going in) is a row of niches, and there is also one niche on the left. The well-hole just mentioned gives access downward to a domed chamber of the usual type 3 feet 11 inches across, 4 feet 6 inches high. This cell, E 3, communicates with E 2 by a doorway 1 foot 3 inches across. E 2 is an irregular rectangular chamber with re-entrant angles, and much choked with earth. Near the entrance is an oval niche in the wall, 2 feet high, 10 inches deep, the lower part containing a hole 8 inches deeper (*see* Plate IV, Fig. 9). In the side opposite the entrance from E 1 is a doorway, revealed for a movable door, which, by means of a winding passage of some length, communicates with B E, the cell already described. This passage has been cut with short, sharp strokes of a pick; the direction of the marks shows that it was cut from B E towards E 2. As in some of the other passages, there are little niches all along the line where the walls meet the ceiling. In the floor of E 2, close to the entrance to this passage, is a cylindrical depression 1 foot 6 inches across.

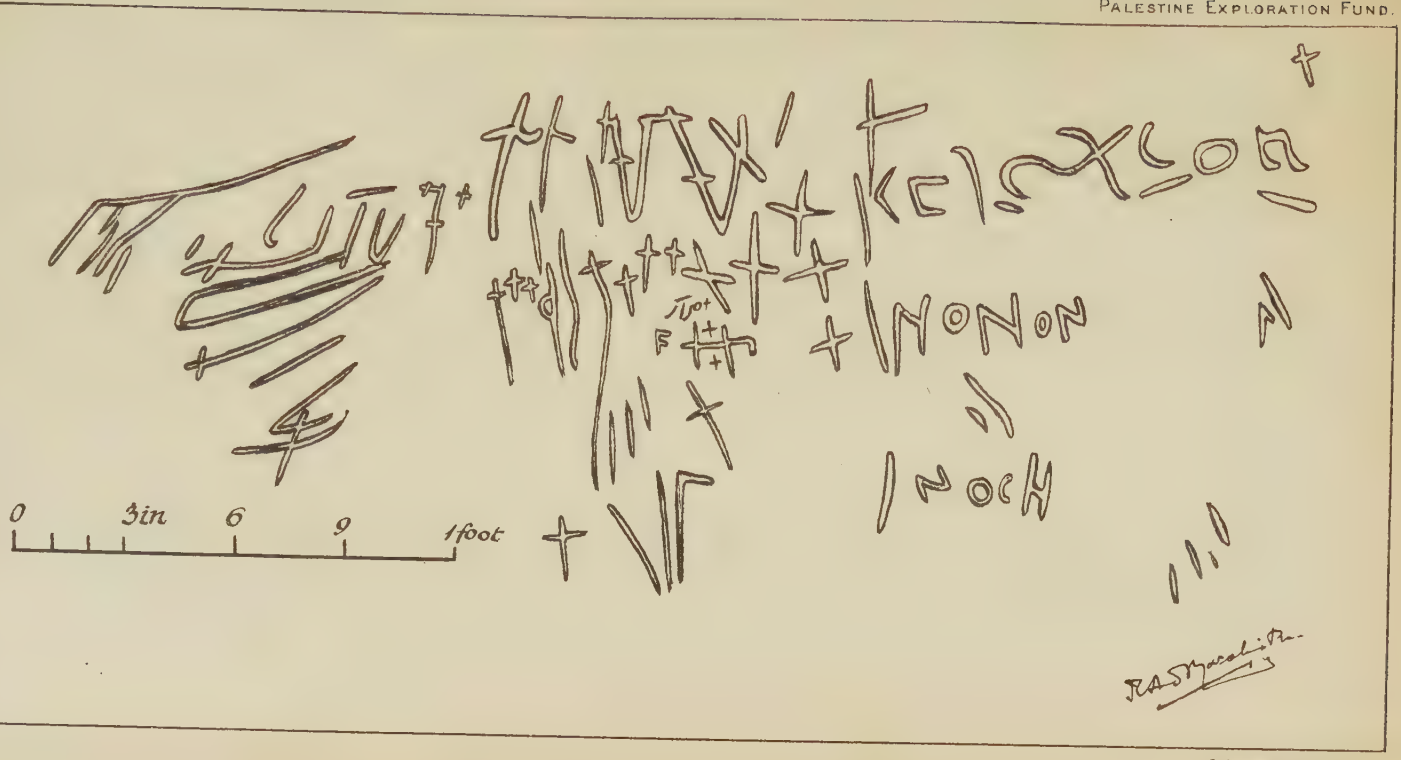
E 1 is a domed cell, so full of rubbish that no satisfactory measurements can be taken; it communicates with E 2 by a small and very awkward circular doorway. The well-hole by which it communicates with the Inner Central Chamber is 1 foot 7 inches across.

System F.—*From the North-west of the Inner Central Chamber.*

The passage F *a* originally ran north as well as south of the entrance by which it communicates with the Inner Central Chamber, but the northern arm is now blocked immediately inside the doorway. Proceeding along the southern arm, we notice first a small hole accidentally broken through the wall to F 1; then on the left the entrance to the impracticable passage already described, D *b*; then on the right, among a number of wall niches of the usual shape, a curious mark recalling those in A 7 and the Outer Central Chamber. This is shown in Plate IV, Fig. 2, iii.[1] The height of the passage F *a* is 3 feet 9 inches.

F 1 is about 11 feet across. It is chiefly remarkable for a graffito on its eastern wall, above the entrance to F G. From the annexed copy of this graffito (reduced from a rubbing by the method of squares) it will be seen to consist of rude crosses and some lettering. I can make nothing of the latter except the abbreviation **IC XC**, obvious in the top line. **INONON** has a cabalistic ring, suggestive of Gnosticism, but into this subject I cannot venture; I suspect, however, that several letters have been lost by the wear of the soft limestone, which is very friable, and can be scratched with the finger nail. The south side of the chamber is also covered with scribbling, but the marks are quite indefinite. This graffito testifies to a Christian occupation of the souterrain. In the list of the Zakarîya rock-cuttings I recorded the existence of two crosses in No. XXXVII (*Quarterly Statement*, 1899, p. 35); I have since found others in the same excavation, as well as an illegible Cufic inscription.

[1] I should be much obliged for reference to any marks existing elsewhere similar to the three shown, Plate IV, Fig. 2, and also for any suggestions as to their meaning.



Graffiti in the chamber F1 of the great Souterrain

F 2 is a domed cell 6 feet 7 inches deep and about 9 feet in diameter; it is entered by a well-hole in the floor of F 1, 1 foot 5½ inches across, 1 foot deep, and provided in the mouth with shallow bolt-holes by which a stopper can be secured.

F 3, 4, are twin chambers resembling A 16 and 17 in general appearance, though larger and not so neatly worked. They are greatly cumbered with rubbish. Each had a shaft communicating with the surface, in addition to which there are remains of a much-ruined flight of stairs running from the ground level to a lobby above the communication between the chambers (*see* Section VII). On the jambs of the opening from this staircase to F 4 are cut squares containing dots (*see* Plate IV, Fig. 6; "left" and "right" in the plate refer to the hands of a spectator facing chamber F 4).

F G is entered by a very small doorway leading out of a lobby sunk below the level of the floor of F 1. The doorway giving access to this lobby is neatly cut, with rounded top, and is 2 feet 3½ inches high. The chamber measures 6 feet by 9 feet, and is choked with earth. Besides the above described entrance it has two others, one, now barely passable, leading to G 1, and another almost completely filled with earth and of unknown destination.

System G.—*Beneath and North of the Inner Central Chamber.*

A well-hole bevelled (not revealed) to hold the stopper, 2 feet 4 inches across and 1 foot 3 inches deep, admits to G 1, an irregular chamber 8 feet by 4 feet, with earth strewn on the ground. It has several niches in the walls, one of them of large size. Besides the small opening to F G, it has two entrances to G 2, one of them a round-topped doorway, 2 feet across and 1 foot 10½ inches above the present level of *débris*, the other a round hole 1 foot 4 inches across. This chamber has all been cut out with a half-inch chisel, but an inch chisel has been used in finishing off the doorways and the angle between the wall and the roof on one side. G 2 has also been cut out with a half-inch chisel. There are five niches in its sides.

Entrance to G 3 is obtained by a passage sunk below the floor level of G 2 and partly contained within its area. This chamber measures 9 feet 6 inches by 5 feet 6 inches, and its present height is 3 feet 1 inch, the floor being covered with a layer of loose gravelly soil. The chamber was cut out with long, vertical strokes of a blunt rounded pick; the ceiling shows marks of a fine chisel held edgeways and struck with short, sharp strokes. The door has a rounded top.

A peculiarity of G 3 well worth recording is the freshness of the air within it. The air throughout the souterrain is very close, and in some of the chambers (notably F 3, 4, which have been trysting-places for generations of bats) is little short of pestilential. On every occasion that I have entered this chamber I have been struck by the phenomenon, which is to me unaccountable (considering that the chamber is nearly 25 feet underground) save on one hypothesis: that a passage (natural or artificial) communicating between this chamber and the open air still remains to be discovered, its outer end being unclosed, and its inner end blocked only by the layer of loose gravel on the chamber floor.

System H.—*Beyond System F.*

A passage leading northwards from F 1 runs for 9 feet, and then strikes a gallery at right angles. To the left this gallery, which led upwards, is now blocked; to the right it proceeds for 7 feet 6 inches, and then enters H 1. An entrance to unknown parts of the souterrain can be seen by looking through a crevice between the wall of the passage and the block that renders it impassable. The direction of the pick-marks shows that the passage was cut from the blocked end towards the two systems which it unites. There is one niche in the wall, at the angle where the passage from F meets that from H.

H 1, 2, form another pair of twin chambers of the type of A 16, 17. Each communicated with the surface H 1 by two of the ordinary roof shafts (one of which shows marks of weathering and has footholds cut in its sides), H 2, by a passage, now blocked with stones piled up at 3 feet from the entrance. H 2

is a fine chamber, about 16 feet across, the pick-marks in the sides of which have been carefully disposed so as to form horizontal rings, about 9 inches wide, of oblique strokes (*see* Plate IV, Fig. 7). The same technique appears in some of the bell-shaped cuttings with staircases in other parts of the Tell, but is not found elsewhere in the Great Souterrain. The floor of H 1 and H 2 is thickly covered with *débris;* probably the rock is sloped in the same way as the line of *débris*, as otherwise the two passages, from F and to H 3, would be inaccessible. In the wall underneath the entrance to H 3, there is a mark as though a doorway to a projected series of further chambers had been blocked out but immediately abandoned.

H 3 is raised about 8 feet above the level of H 2. It has two means of approach—a round hole cut in the walls between it and H 2, about 1 foot 6 inches across, showing evidence of wear in its lower edge; and an awkward passage starting from H 1 and running behind the wall of H 2. This passage for its first half rises, then expands into a small cell, after which it falls into H 3. Section II illustrates it fully, and shows the row of small niches on one side. The circular door in the middle of the gallery admits to a passage that led outwards, but is blocked: there is a well-cut doorway with reveal, bolt-hole, and chase at the blocked end. A square figure is marked with little scratches about 6 inches long on the right hand jamb of the door shown in the section. This passage has been cut out with a narrow chisel; a $1\frac{1}{2}$-inch chisel has been used in finishing the ceiling.

H 3, a chamber about 9 feet 10 inches by 13 feet, has been worked with two chisels, one 1 inch, the other $1\frac{1}{2}$ inches broad; there are a few marks of a $\frac{3}{4}$-inch chisel also. Near the entrance both are used together, but towards the inside the largest chisel was the most used. A flight of steps runs downwards from H 3 to H 4, a roughly rectangular chamber, 8 feet by 4 feet. There are three niches. A small pick has been used except in the recess opposite the steps, which was formed with a $1\frac{3}{4}$-inch chisel. The steps were made with a very fine edged tool held sideways.

H 5 communicates with H 3 by a passage: the floor of the chamber is 2 feet 1 inch below that of the passage. In each angle of the floor is a saucer-shaped depression. The walls of this room have been finished with a little blunt cylindrical pick $\frac{1}{2}$ inch in diameter, with which instrument (held vertically to the wall) many of the niches have been formed elsewhere in the souterrain. In one side of the door, however, there are marks of a $1\frac{1}{4}$-inch chisel. At a distance of 4 feet 6 inches from the wall containing the entrance a deep line is cut across the ceiling, and a similar line is made to meet it parallel with the top of the right hand wall. The direction of the pick marks, *towards* the door, indicates that the body of the room was first hollowed out and the walls finished afterwards. There is one niche in the south wall, and a foothold, worn by treading, cut beneath the entrance. Along the north side of the passage is a row of four niches. Between the bend of the passage and H 3 a $1\frac{3}{4}$-inch chisel is used for finishing off the ceiling; between the bend and H 5 a pick is exclusively used. There is a recess, with hollow depression, on the left side of the entrance to this passage from H 3: the recess is 7 inches across, the depression $3\frac{1}{2}$ inches deep.

Returning now to H 2 we proceed along the passage H *d*. At its end is a chamber, apparently a natural fissure in the rock from its irregularity and the absence of pick-marks. On the right hand side of the passage is a bay, in the floor of which is a well-hole: beside the hole is lying the original stopper—an irregular stone with a rough projection on one side that just fills the well-hole.

This hole gives access to a cell 2 feet 7 inches across and 5 feet 8 inches high. Two niches are cut as footholds in its side. In the centre of its floor is a rectangular depression, in the middle of which is another well-hole, leading to a lower cell, 8 feet 3 inches across, 4 feet 10 inches high. The walls of this cell are carefully chiselled smooth. From the upper cell two passages radiate: one is blocked with earth; there is a row of five niches in its right hand wall. Over the entrance are three small grooves resembling the rope marks at the mouth of a well. The other leads down to an extremely small

chamber 3 feet across and 2 feet 9 inches high, formed with large widely-spaced chisel cuts, and finished with a finer tool. Along the left side of the wall of the second passage is a row of niches, six in number (one of large size), 3 inches from the roof. This passage has been cut with a ¾-inch chisel; a wider tool has been used at the spot where it bends.

So far as known the number of chambers in the Great Souterrain, including small cells, is 49, namely:—Central Chambers, 2; System A, 17; System B (including B E), 6; System C, 2; System D, 0; System E, 3; System F (including F G, an inaccessible room communicating with F G, and the lobby over F 3, 4), 7; System G, 3; System H (including the small cell in the middle of H *b*), 9. The above results have been obtained with the smallest possible amount of excavation. There is little doubt that a systematic removal of the *débris*, and opening up all the blocked chambers and passages (of which there are 16 known at present), would have resulted in the addition of other systems to those already known. It seemed doubtful, however, whether further intricacies in the already highly complex plan would benefit science to an extent commensurate with the outlay which such operations would involve.

Any attempt to assign a period or a purpose to the excavation of the Great Souterrain must depend entirely upon its architectural features, if I may so term them. There is little or no chance of the discovery within it of any portable antiquities more valuable than some fragments of Roman and Arab pottery and one or two Arab beads which I found here and there. Nor has tradition any light to throw upon the question. Locally this souterrain is known as the مهمل, *mihmal*, a word, I suppose, to be somehow connected with the root حمي, "to be hot"; the name tells us nothing of the origin of the excavation, and on this subject the Fellahîn profess complete ignorance.

ON A ROCK-TOMB NORTH OF JERUSALEM.

By R. A. Stewart Macalister, M.A.

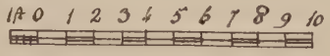
The fine tomb which forms the subject of this notice has, since its comparatively recent discovery, attracted considerable interest and attention both inside and outside Jerusalem. It appears that a shepherd noticed the finial above the entrance doorway projecting from the surface of the accumulated *débris*, and that, through the proprietor of the land, word was brought to the Dominican Fathers of St. Étienne, Jerusalem, to whose zeal the archæology of the country owes so much. The credit of determining the interesting character of the excavation belongs partly to the Dominicans and partly to the Rev. J. H. Sedgwick, of Jerusalem, who was one of the first, if not the first, to enter the tomb, and by whose name the tomb is frequently called. Mr. Dickson, Her Majesty's Consul at Jerusalem, was also instrumental in having some of the *débris* which blocked the entrance cleared away, and thus rendering the interior accessible.

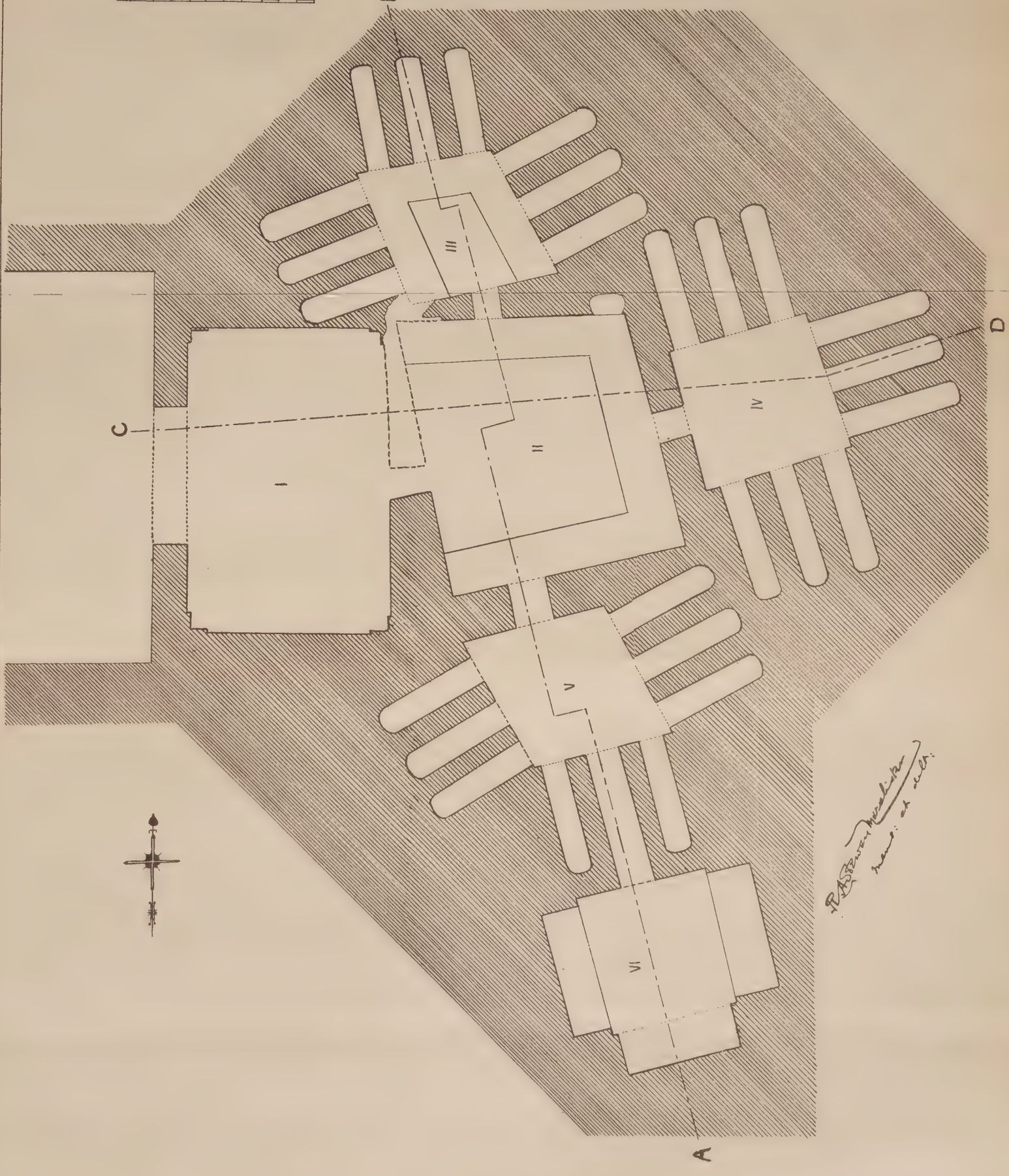
During his recent stay in Jerusalem Sir Charles Wilson visited the tomb, and it appeared to him sufficiently interesting to warrant the undertaking of further excavation. Accordingly at the request of the Committee I proceeded to the tomb and had shafts dug at the entrance and in each of the chambers, besides clearing out the soil from round the sides of the chamber figured III in the accompanying Plan (Plate I). I was thus enabled to determine the height of each chamber and of the entrance, and to establish the (previously hypothetical) existence of loculi in the chamber mentioned.

I should mention at the outset that in preparing the following description I have had the advantage of referring to three articles upon the tomb—one by Mr. Paul Palmer in the "Mittheilungen" of the Deutscher Palästina-Verein (1898, p. 39); one by the Rev. Père Vincent in the "Revue Biblique" for April, 1899, p. 297; and an unpublished memoir by Dr. Schick. An earlier paper or note on the same subject, as I

ROCK-TOMB NORTH OF JERUSALEM.

PLAN





understand, appeared in the "Revue Biblique" for January, 1898, but this I have not seen.

The tomb is one of the series that forms a great necropolis lining the valleys north of Jerusalem. It stands a little north of east from the absurdly named "Tombs of the Judges"; according to Dr. Schick, about 1,500 feet from that well-known excavation. It shares with the "Tombs of the Judges" many characteristics in common which distinguish both from the other rock-tombs in the neighbourhood. In the great majority the rock-cutting is left without ornament to relieve its severity. In one known to me there is a slight moulding round the entrance; in another an elaborate distyle portico has been cut out of the rock which even in its present ruined condition retains indications of good workmanship; but no other displays so elaborate a pediment and so much internal decoration as the tomb under discussion and its more familiar neighbour.

In excavating a rock-tomb the first step was the preparation of a vertical wall of rock of sufficient height to contain the doorway. When nature did not provide a convenient precipice it was obviously necessary to quarry a recess in a sloping mountain side, the back wall of which would supply the deficiency. The entrance to the present tomb has been recessed about 20 feet horizontally behind the original surface of the rock, and a court about 22 feet across has thus been formed. Whether this area was ever vaulted over with masonry—as was undoubtedly the case at the "Tombs of the Judges"—cannot be determined. There are a large number of stones lying about, but if they ever formed part of a building it has become completely disintegrated.

The doorway is 9 feet high by 7 feet 9 inches broad in the clear. The jambs are 1 foot 10 inches thick. Round the door runs a moulding, angled in the orthodox manner. Along the lintel runs a row of dentils, cut on a plate with peculiar oblique terminations. Above the cornice rises a moulded pediment enclosing a sculptured tympanum; at the sides of the pediment are wreaths, and above is the usual anthemion finial. From the top of the finial to the sill of the entrance is a little over 15 feet.

Along the bottom of the tympanum runs a strip of egg moulding; the remainder of the surface is sculptured with a pattern of vine branches, with grapes and leaves, surrounding a central rosette. This composition is, on the whole, inferior to the beautiful design that fills the corresponding place in the "Tombs of the Judges." The general effect is good, but the details will not bear close investigation, and reveal much carelessness. Thus, the branch on the left hand side of the rosette does not spring from the circumference of the rosette, as it obviously should have done; and there are several places in which subsidiary twigs are made to spring from the parent branch in a direction contrary to the growth of the plant. Such solecisms betray the hand of the provincial sculptor (*see* Plate III).

The jambs of the entrance have capitals of singular design. On the outside surface the ornamentation is weathered away. The moulding consists of a plain abacus and a cavetto, which latter is carried as a cornice round the whole of the vestibule inside the entrance. On the jambs the cavetto is naïvely divided into two portions by a horizontal fillet. The abacus is left plain; the upper half of the cavetto bears a row of egg and tongue (in the south jamb oddly interrupted in the centre by a palmette; in the north jamb the inner egg has two envelopes on the inner side); the lower half of the cavetto bears a row of palmettes, of poor design, arranged in couples symmetrically with respect to a single flower in the centre—each couple being of different design to the rest. The innermost palmette in the northern jamb is separated from the rest by a vertical bar. Beneath the cavetto is a row of roundels filled with rosettes of varied design. Details from these capitals are shown on Plate IV, *c*.

The soffit of the entrance is also sculptured—a feature that distinguishes this tomb from all others known near Jerusalem. This portion of the ornamentation is quite the most successful. It consists of three panels, two in relief, and one, which is smaller, sunk; each containing geometrical and floral patterns, the details of which can best be understood by reference to the drawing (Plate III).

ROCK-TOMB NORTH OF JERUSALEM

SECTIONS

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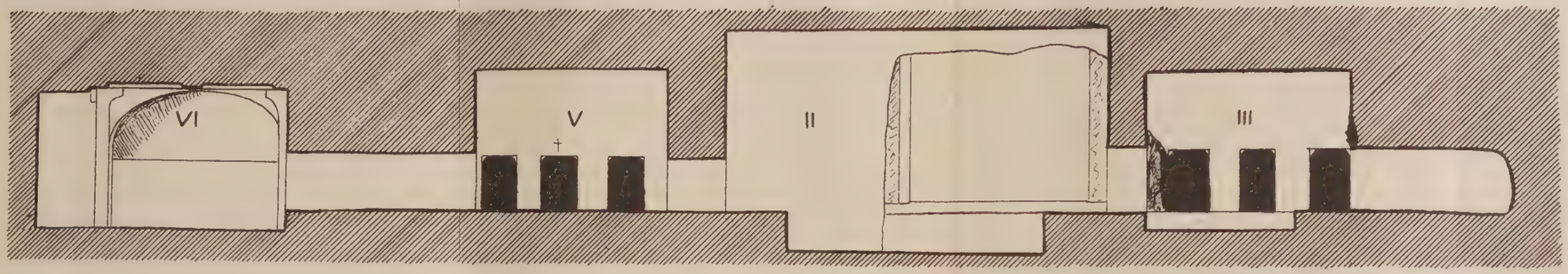
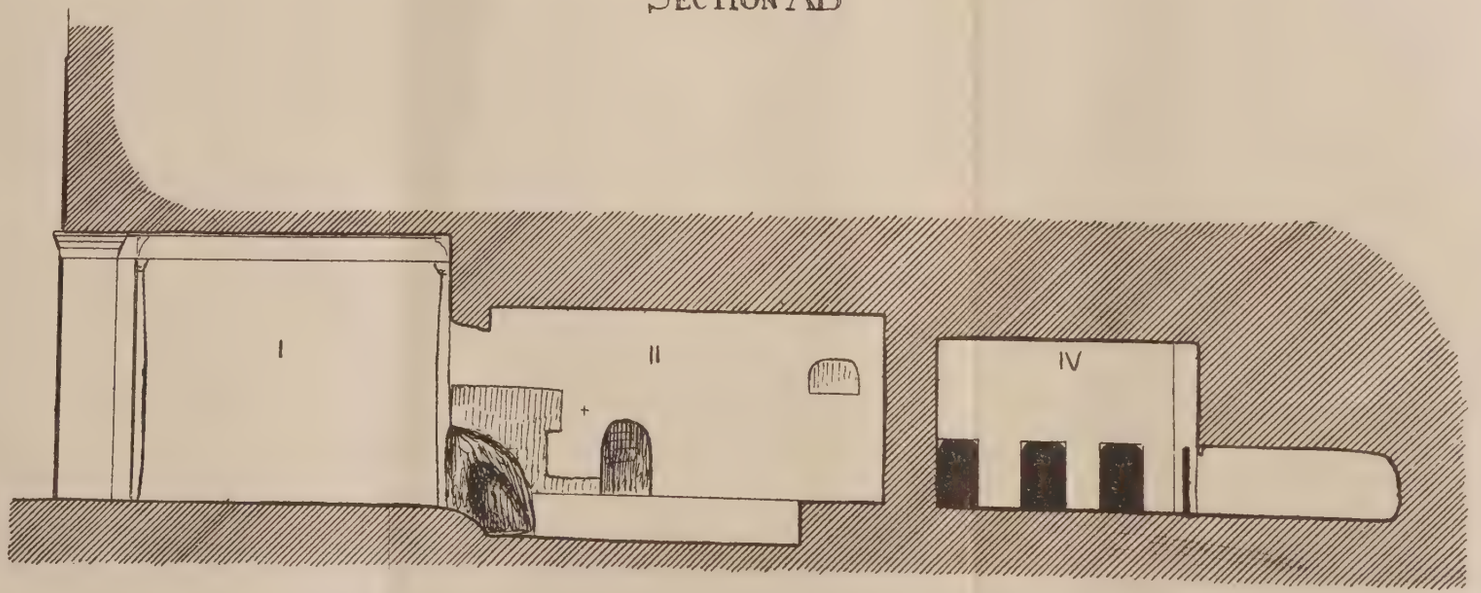


SECTION AB



SECTION CD

J. Akerman, Photo-lith London

The entrance above described gives access to a vestibule which, from its large size, is another unique feature of this tomb. In most rock-cut tombs in the neighbourhood, not excepting the "Tombs of the Judges," the vestibule, when it exists at all, is of small size. The dimensions of the vestibule in the present tomb are about 11 feet by 17 feet, but neither it nor any other of the chambers is truly square.

Round the top of the wall runs the cavetto cornice already alluded to, and in each angle of the chamber is a pilaster. The shafts of these pilasters display an exaggerated entasis (1 inch in 7 feet). The capitals are decorated with discs (merely blocked out and never finished in the two southern angles), above which is a moulding not returned round the edge of the capital (*see* Plate IV, *a*). The ceiling and walls of this chamber have been finished off with a fine chisel about a quarter of an inch in breadth.

A very narrow entrance, which cannot have been more than 2 feet wide, led originally to the chamber marked II on the plan (Plate I). Over this entrance was a finial, resembling that in a similar position at the "Tombs of the Judges": it is shown on Plate IV, *b*. The whole of the eastern side of the vestibule, however, between this entrance and the north-eastern corner has at some time been quarried away, so that a large irregular hole is now broken in the wall that once separated the two chambers; the corner of Chamber III also has been removed, with part of an adjacent loculus.

Chamber II, which, roughly speaking, is about 14 feet square, is the central hall from which the sepulchral chambers radiate. Of these there are three, one on each of the north, east, and south sides. Round these sides of the chamber runs a raised step. In the north wall is a niche near its eastern end, probably intended to hold a light. The elevation and sections (vertical and horizontal) of this niche are shown (Plate IV, *g*).

Chambers III, IV, and V, the sepulchres proper, may be described together. The plans of these apartments, as can be seen from the drawing, are very irregular—more so than would appear at first sight to a visitor.[1] In each of the three

[1] The directions of the sides of the chambers were determined with a prismatic compass.

sides of each chamber[1] not containing the entrances are three kokim or loculi for inhumation, radiating at right angles from the walls, and provided with the usual recess for a closing slab. In Chamber III the kokim are a little over 6 feet deep; in V they are about the same; in IV they are 6 feet 9 inches. In Chamber IV their general uniformity of appearance is broken by the eastern loculus on the south side, which for some reason is higher than the rest by about 4 inches. Round the north, east, and west sides of Chamber III runs a step similar to that running round Chamber II. Unlike the "Tombs of the Judges" the present tomb shows kokim in one row only in each chamber, and has but one storey of apartments.

Chamber VI is more symmetrical than the others. It is about 7 feet 6 inches square. In each of the three sides not occupied by the entrance is an arched recess, from 2 feet 3 inches to 2 feet 6 inches deep, and between 6 feet 6 inches and 7 feet broad. The recess opposite the entrance runs from roof to ceiling: the two other recesses are filled with benches (*see* the section, Plate II, also Plate IV, *d*, where the ornamentation of these benches is shown to a larger scale). We thus have a sepulchral chamber with the bench receptacles found in such later tombs as the "Tombs of the Kings" and the series in the St. Étienne grounds.

In the ceiling of this chamber is a wide circular sinking, 1½ inches deep, in the centre of which is a 16-pointed rosette (*see* Plate IV, *e*).

Dr. Schick regards this chamber as a later addition to the series—a conclusion to which at my first visit to the tomb I had independently arrived. According to this theory the central loculus of the fifth chamber was enlarged and prolonged so as to form a passage. Père Vincent, however, regards it as contemporary with the rest, and as being the principal place of sepulture—no doubt for the heads of the family at whose expense the tomb was cut. Subsequent visits to the tomb, and comparison with the arrangements of other rock-tombs in the vicinity, have led me to reconsider my own view and to

[1] Except, of course, the south wall of Chamber V.

ROCK-TOMB NORTH OF JERUSALEM

ENTRANCE

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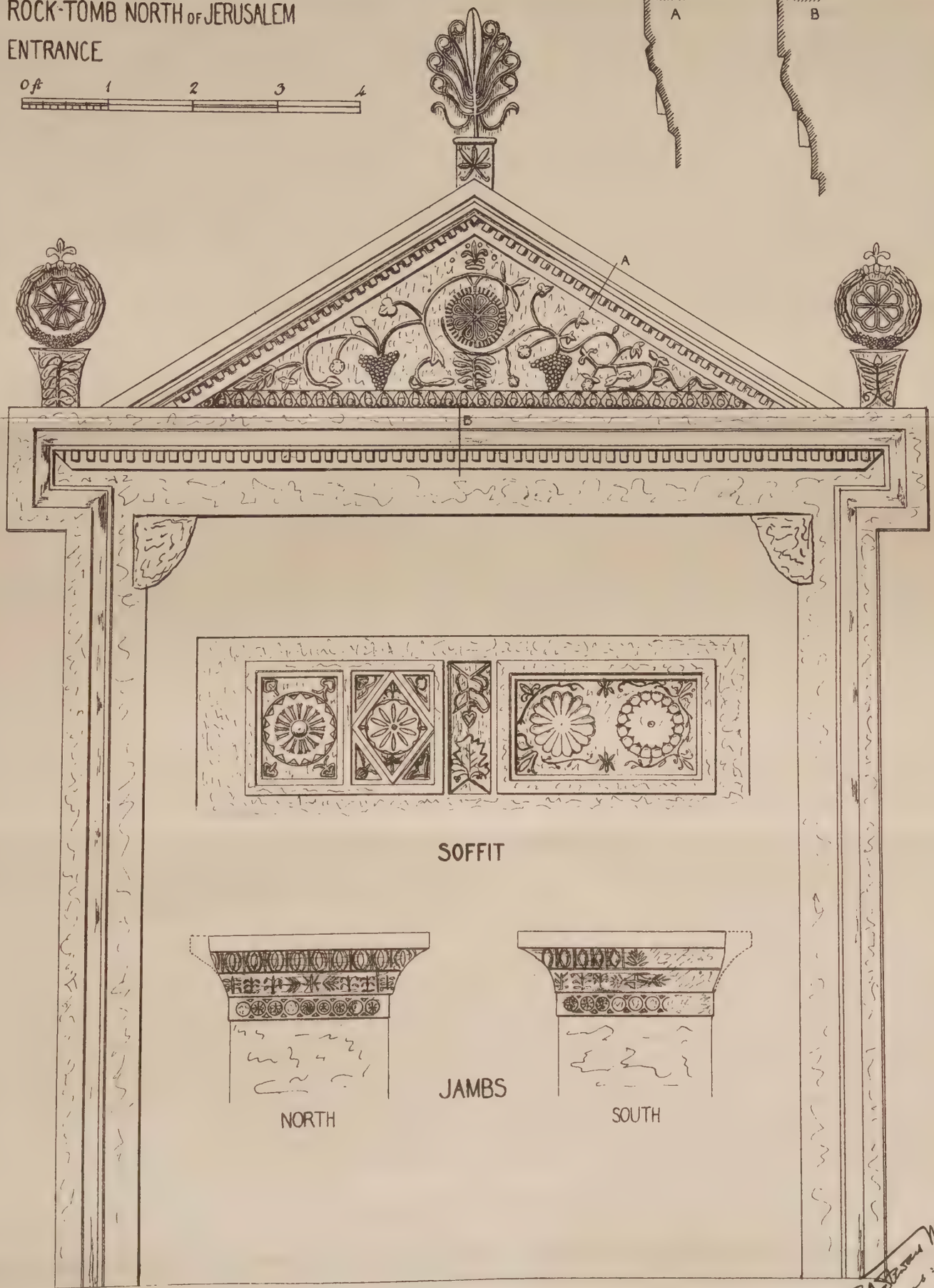

SOFFIT

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SOUTH

J. Akerman, Photo-lith. London

conclude that the latter theory is more probably correct. In favour of the theory of subsequent addition might be urged the variation in style of sepulture, and the destruction of the symmetry of the plan of the tomb by the presence of Chamber VI. These arguments, however, are both inconclusive. Close by the present tomb is another in which kokim and bench-graves are found side by side in adjacent chambers; and while symmetry was often sought in planning these tombs, this is by no means invariably the case. The technique of the pick-marks on the walls is powerfully in favour of the hypothesis of contemporaneity, for the disposition of the marks is similar in Chambers I, III, V, and VI, and is, moreover, rather peculiar. There is not enough decoration inside Chamber VI to make a comparison between it and the carving at the entrance instructive; if anything, the rosette in the roof of Chamber VI is more roughly executed than anything to be seen at the entrance. This, however, is only to be expected, considering the difficulty of working by artificial light, and the small encouragement which the sculptor had to take trouble over a chamber that would be entered so rarely.

In an endeavour to assign a date to the monument, the total absence of inscriptions compels us to rely solely upon a consideration of its architectural and decorative details. The influence displayed is Greek throughout, and the mouldings are all good, though the floral work is in places rather suggestive of the striving of a local sculptor after originality. There is nothing to add to Père Vincent's conclusion, that the tomb probably dates from the Hasmonean period.

It was not, however, allowed to remain in the undisturbed possession of the family which originally cut it out, whoever these may have been. Three stages of its subsequent history have left their traces upon its walls.

(1) The presence of crosses, rudely scratched upon the walls in certain of the chambers, indicates that some at least of the loculi were reappropriated for the interment of Christians. Such crosses are frequently to be seen in rock-cut graves, as in the portico of the distyle tomb already referred to, and in the so-called "garden tomb." In the present tomb crosses occur in

the following situations:—In Chamber II, over the entrance to IV (perhaps indicating that all the graves in that apartment were reappropriated), and another a little further to the right; also one, finely scratched, to the left of the entrance to III; and in Chamber V, over the middle loculi on the eastern and the western sides. These are all mere roughly-scratched combinations of a vertical with a horizontal line. There is no other graffito of any kind (except the inevitable candle-smoking of brainless modern visitors), unless we include some indefinite strokes, some vertical, some horizontal, on the west wall of Chamber II.

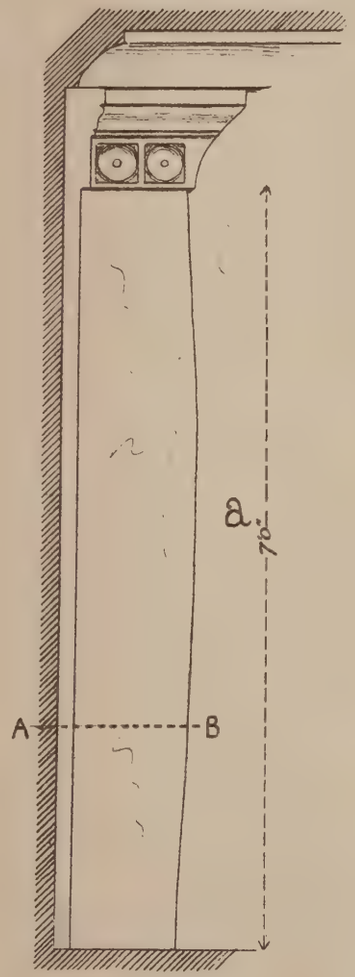
(2) A little plaster on the lower part of the walls of Chamber II and on the step that surrounds it indicates that at some time this excavation was converted into a receptacle for water—the common fate of such rock-tombs and columbaria as are at all capable of it. A noteworthy illustrative example occurs in the immediate vicinity. The tomb already mentioned as displaying the combination of kokim with *mastaba* bench-tombs has had an elaborate water-groove cut in its face, leading downwards to a lower chamber, which thus became a cistern. A fissure in the rock-scarp above the entrance to the present tomb was by Dr. Schick taken for a similar water-groove, but after careful examination I could not satisfy myself that it was other than the effects of mere natural weathering.

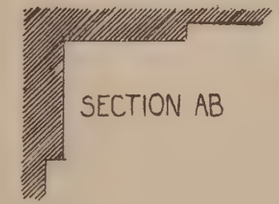
Apparently the water was confined in the chambers by forming a concrete block before the entrance, for in digging the shaft at this point great difficulty was caused by the large quantities of solid cement intermingled with the soil; indeed, two picks were broken by it.

(3) I have already referred to the fact that the wall between Chambers I and II has been quarried away; from part of the north wall of Chamber II also blocks have been removed, as may be seen from the section (Plate II). It has been stated that a niche, similar to that still remaining at the north-east corner, was partly destroyed by the quarrymen, but of this there is no definite evidence.

Quarrying inside rock-tombs was apparently a frequent proceeding. Other examples of its results may be seen in the

ROCK-TOMB NORTH OF JERUSALEM
DETAILS





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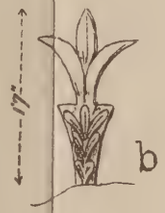

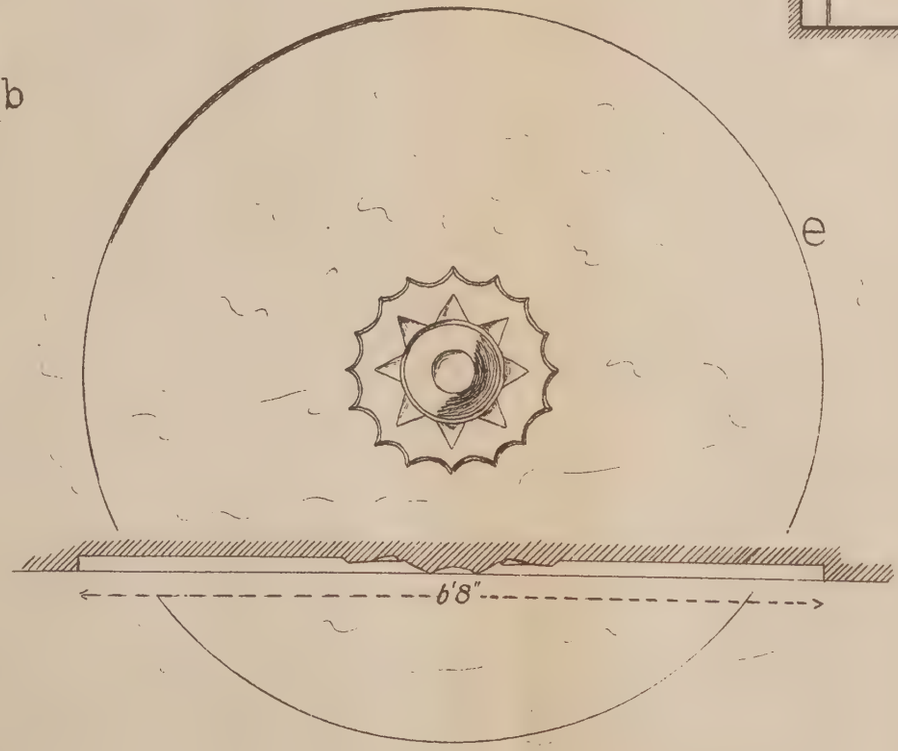

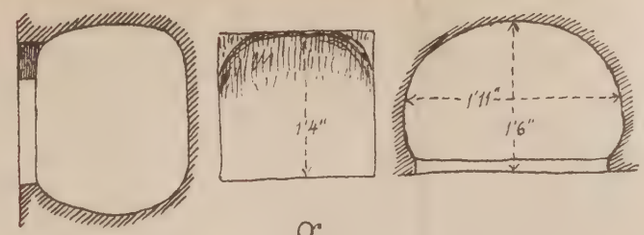

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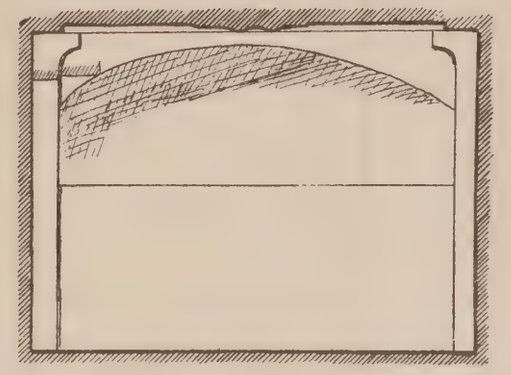

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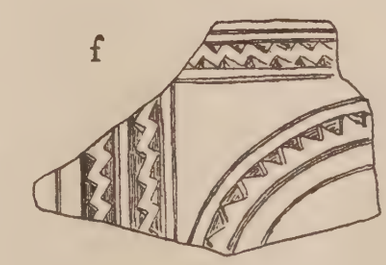

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R. A. Stewart Macalister
mens: et delt:

puzzling lower chamber of the "Tombs of the Judges," and in the interesting tomb with the water-groove just mentioned. It is probable that the stone from inside these excavations was sought because, being protected from the weather, it had not acquired a hardened surface, and so was more easily worked than stone from an open quarry would be.

That the tomb was thoroughly rifled before it was closed up and forgotten goes without saying. I found in it nothing but some scraps of Arab pottery and the minute fragment of a soft limestone sarcophagus, $4\frac{1}{2}$ inches by $5\frac{3}{4}$ inches by $1\frac{1}{4}$ inches in thickness, which is shown on Plate IV, *f*. Père Vincent mentions having found minute fragments of sarcophagi and also some beads, all of which he assigns to the latest period of sepulture. I have seen a fragment of sarcophagus, decorated very similarly to that here figured, from a neighbouring tomb; and Père Vincent has informed me that the fragments found by him were of the same character.

REPORTS BY DR. CONRAD SCHICK.

I.—Jacob's Well.

In the *Quarterly Statement*, 1894, is a plan of the church which once stood over Jacob's well, made by Dr. Bliss five years ago, when some excavations had already been made. Recently I sent to the office of the Fund in London a few photographs of the ruins, and to-day I send an exact plan, containing not only the church, as far as it is excavated, but the whole ground and neighbourhood. The place is now surrounded by a new boundary wall set upon the old foundation, and marking the form and extent of the ancient enclosure with the old Christian Church, the Convent, and gardens.

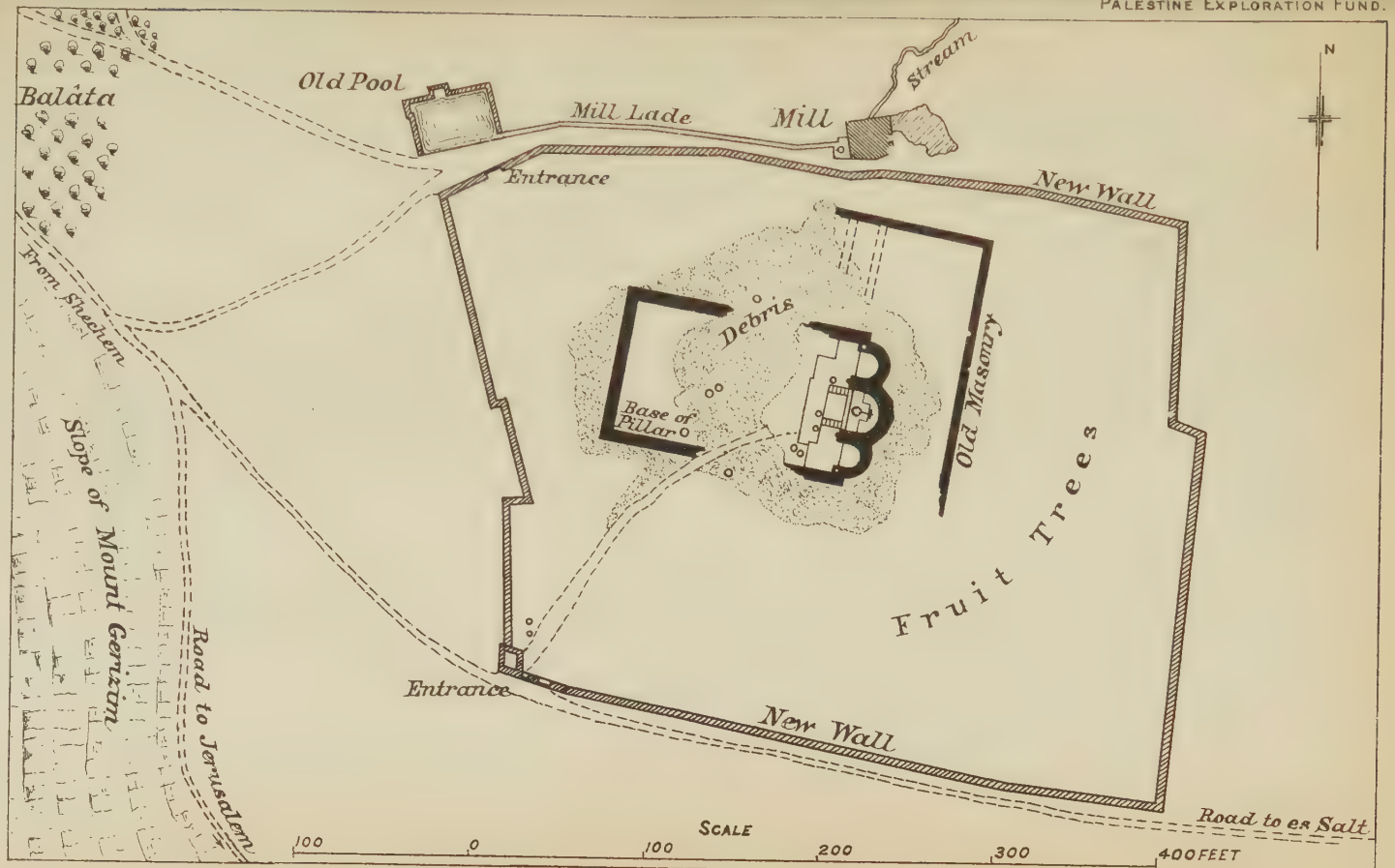
At the north-west corner of the place, outside the wall, is an old pool, with a spring or outlet of a spring, I am not sure which, in it, running off as a little brook and once driving a mill lower down. A short distance west of the pool are the gardens of the hamlet Balâta. The etymology of this word is in some degree uncertain. Balâta means in Arabic a pavement of flat stone slabs, but there is now nothing there but gardens and a few huts among them, so one thinks of *Baluta*, *i.e.*, an oak tree, and is reminded of Genesis xxxv, 4: "Jacob hid them (the idols and earrings) under the oak which was by Shechem." The place is just at

the entrance to the Nâblus Valley, between Gerizim and Ebal, so the name may arise from this very oak and testify that here were always some trees. From this point the roads diverge towards north, east, and south, and most probably from here steps went up to the top of Mount Gerizim and its temple, and the later Church of Justinian, shown on a coin of Justinian (*see* Sepp. "Jerusalem und das Heilige Land," Schaffhausen, 1876, vol. ii, p. 49). At the foot of Gerizim is Jacob's well. The place belongs to the Greek Convent, and lay waste and without trees—only some stones and pieces of pillars were lying about, and some masonry was visible at the mouth of the well—till recently the place was cleared by a Greek priest, excavations made, and many fruit trees planted, and later on the whole was enclosed with a wall having two entrances, one near the south-west corner, to go to the main road, the other near the north-west corner, to go to the water which comes out from the place of the old pool, which is now partly filled with earth. At the middle of the west side the boundary wall has a curious recess, and there, I think, was in ancient times the chief entrance to the place and the church. At the south-west corner there is a room made for the watchman. Whether there was one in ancient times I do not know, but it may be, as there the highway to the trans-Jordanic country passes, and there was certainly a small door in the wall, as again now.

The church and surrounding rooms stood pretty near the centre. The church was 140 feet long, 87 feet wide, outside, without the projecting apses. As there are at the east end three semicircular apses, their ends furnished with pillars, it seems to have been most likely a basilica with two rows of pillars, running from west to east, and not four rows, as the plan in *Quarterly Statement*, 1894, p. 109, shows, suggested by the two pillars marked there L and M. But, as the new plan shows, the pillars are rather curiously placed, indicating that these remains, or at least some of them, most probably are not in their original position. The single pillars outside the northern and southern walls of the church look at first sight strange, but I think these are remains of porches in front of the north and south entrances, and that there were on each side a couple of pillars bearing the porch, which was open on three sides. As the new plan shows, the church had no entrance on the west side, the two pillars in the centre of the nave are certainly no longer *in situ*, if the church was a basilica, but if the pillars are all *in situ* then the inner arrangement of the church is a puzzle which can only be solved when the whole of the rubbish is cleared away.

The eastern part of the church, being thoroughly cleared, is better understood. Like the church at Bethlehem it had under and in front of the middle apse a crypt, to which two flights of stairs led down from the main level of the church,[1] and as the roof of the crypt rose higher than the floor of the church it formed an elevated choir, to which, as it seems, a stair led up (at the northern part), and here in the middle apse, and

[1] The real mouth of the well was there, and is now; over it, in the choir, stood the altar.



JACOB'S WELL, PLAN OF CHURCH AND ENCLOSURE.

J Akerman Photo-lith London

just above the well mouth, stood the high altar (perhaps it had also a hole that water might be drawn even from there). As shown in the plan, my conviction is that as long as the whole church is not thoroughly cleared inside, and round about outside, and down to the main ground, the restoration of the church on paper cannot be made with certainty. This eastern arrangement reminds one of the Chapel of the Invention of the Cross in the Church of the Holy Sepulchre at Jerusalem, now much altered, though one is still able to see how it had been originally.

With regard to the puzzle why Jacob digged such a deep well, with an immense deal of labour, so near to running living waters, or springs, I think, as others have suggested, it was to avoid quarrels between Jacob's people and the Shechemites, who most probably forbade them to fetch water from their spring. That Jacob could dig so near to them proves that the ground belonged to that he had bought from them. Later on, Joseph was buried in that field, and as the tomb of Joseph is shown to-day, at some distance north of the well, the field must have been of some extent; and that he digged the well so near the property of the Shechemites is to me a proof that being so long a shepherd, and as such nearly always in the open air, and being a good observer of everything that happened, and of the nature of things, Jacob had the knowledge or the conviction that the well would be best situated on the foot of Mount Gerizim and nearer the main road, than in the open field where in rainy time or in snowstorms the ground becomes muddy. Also at the same time he knew that most probably water would be found in the neighbourhood of already existing springs if the well were made deep enough for the water to find its way there.[1] All these deep wells in this country are not made in the first instance to collect rain or surface water, but water which runs out or drops from the strata into a hole made still deeper, where water may be had in the time when there is no rain or snow. So is also Bîr Eyûb, near Jerusalem, and many others; the natives call them *nebb'a;* the springs, *'ain;* and the cisterns for rain-water, *bîr*. So Jacob's well is *nebb'a*, which does not exclude rain water which may also run in and help the *nebb'a* to keep up the supply. There may be also another reason, namely, that being at a lower level it would get the water coming from the springs inside the mountain. So Bîr Eyûb at Jerusalem has much better water than 'Ain Silwân, which is situated 230 feet higher.

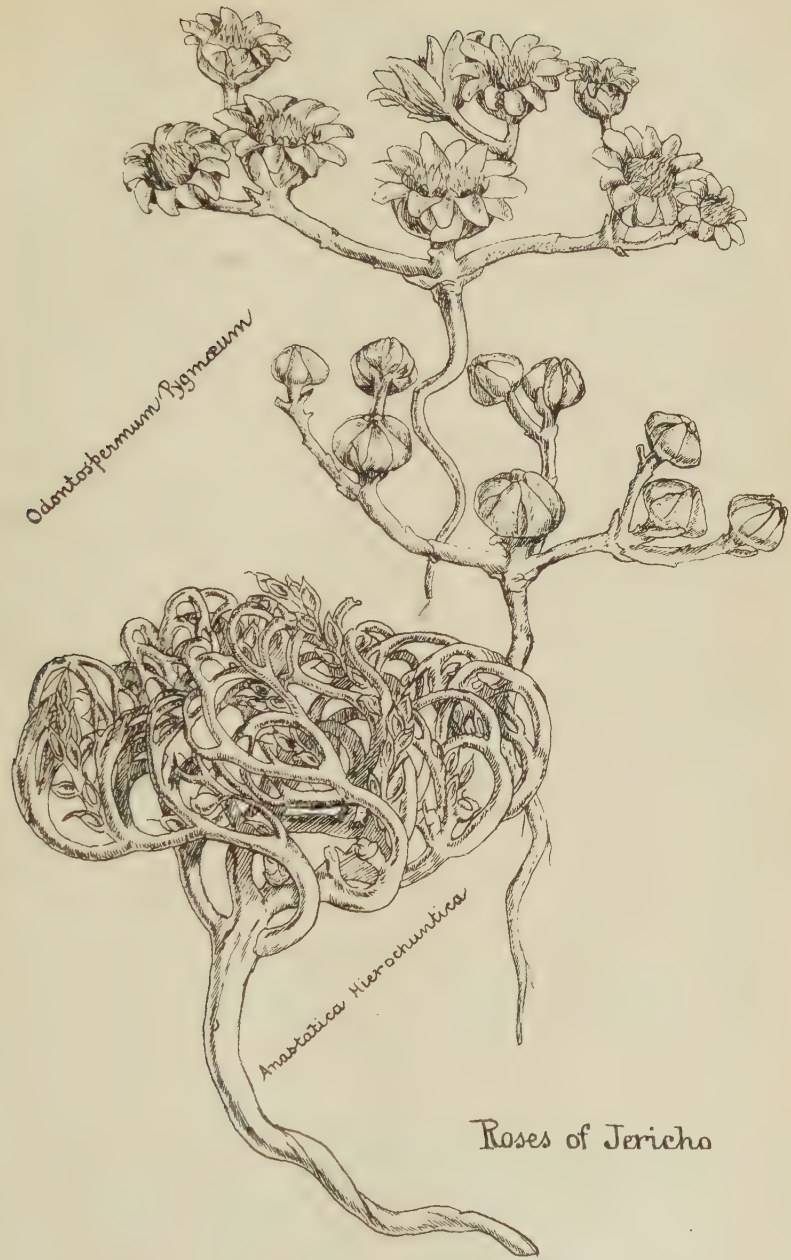
II.—The Rose of Jericho.

In Ecclesiastes xxiv, 14, the divine wisdom is compared to "a palm tree in Engaddi," and to "a rose plant in Jericho." That in ancient time, when the plain of Jericho was properly cultivated, "roses" also of the choicest sorts were planted cannot be doubted. In A.D. 1172,

[1] In the Gospel of St. John iv, 6, "Jacob's well" is called πηγὴ, and in verses 11 and 12, φρεαρ.

Theoderich wrote :—"Many roses grow there (at Jericho), which expand a lavish abundance of petals. Wherefore the comparison, 'like a rose planted in Jericho,' befits our Lady. It also is remarkable for large and excellent grapes" (Pal. Pil. Text Soc., London, 1891, p. 49). The latter, together with the roses, are no longer there. After the Crusading period the cultivation at Jericho fell into decay, and the plain became a wilderness. But as roses were, as Theoderich states, brought into connection with the Virgin Mary,[1] pilgrims in all ages wanted to see and have a rose of Jericho. So the curious little plant found in the neighbourhood, called by Linnæus *Anastatica hierochuntica*, the plant of awakening or resurrection, so called on account of its remarkable property of when dry and dead expanding and apparently reviving when put in water, was called by this name. When out of the water, and kept in a dry place or in the open air, it becomes dry again, the branches bend together, forming a kind of ball, and so remain until it again comes in contact with water, when it reopens. The observation of this curious feature gave rise to many superstitious ideas, as, for instance, that it grows on the spots where the Virgin Mary when walking had put her feet, as Ludolph of Sachem tells us, A.D. 1336; that it opens only on certain feast days of the Church, or only in the evening; that if kept in the hand by a woman labouring of child she will have an easy delivery, and many similar things. A good many specimens of this plant are brought to Jerusalem and sold to pilgrims. Every traveller wishes to see it, and hopes to find it at Jericho, but in vain, so that Baedeker's Guide Book (in English), Leipzig, 1876, p. 284, says :—"The plant is neither a rose nor does it grow at Jericho." It is a low annual herb of the order *cruciferæ*, soft and herbaceous at first, but its branches become woody with age and close together, but spread out again when moistened. Dr. Tristram, in "The Survey of Western Palestine, Fauna and Flora," London, 1884, p. 226, mentions it under No. 110, and calls it "rose of Jericho," adding, "found only on the shores of the Dead Sea and in deserts." And in his book, "The Land of Israel," London, 1866, p. 220, he says :—"We were more fortunate than Haselquist and his followers down to Robinson, finding the rose of Jericho in some abundance"; and on p. 350 :—"In Wâdy Zuweirah (west side of the Dead Sea) the rose of Jericho was in bloom in great abundance." It was at the end of January; at other times of the year it would not be found so easily. Robinson was there in May, Maundrell in March, and says :—"The roses of Jericho were not to be found at this season." In the *Quarterly Statement*, 1885, p. 250, Mr. Chichester Hart states that he saw the plant in November near Akaba, and says :—"It becomes common there and northwards to the Ghôr es-Safieh." Seetzen found the plant at Engeddi (Sepp, i, p. 731). In Hull's "Mount Seir," Palestine Exploration Fund, 1885, p. 48, we read in the footnote :—"The curious little plant, the rose of Jericho, was found from

[1] Hence the natives call it Yad el 'Azrā, "the hand of the Virgin."



Roses of Jericho

Traced by kind permission from
(1) Hooker's Icones Plantarum and
(2) Curtis's Botanical Magazine.

J. Akerman, Photo-lith. London.

the Sinaitic Peninsula into the Jordan Valley." As it is an annual plant, it seems that it is propagated by seeds. Kitto, "Palestine," London, 1841, ii, p. 284, says:—"Although an annual plant, the stalk is ligneous . . . . dividing into several irregular branches. The flowers are small and white, and possess but little beauty. They are succeeded by short prickly pods containing the seeds."[1] According to Von Räumer, "Palæstina," Leipzig, 1850, p. 87, note 11, the plant has, after 700 years, still the power of expanding again when put in water.

So much on the *Anastatica hierochuntica*, or the well-known rose of Jericho. According to Brother Lievin de Hamme in his "Guide to the Holy Places," Ghent, 1875, p. 339,[2] there was known in the Middle Ages another flower, believed to be the rose of Jericho, which was afterwards lost, but was found again by Mons. de Saulcy ("Journey Round the Dead Sea," ii, p. 81). It resembles a very large daisy, and belongs to the composite family. Also Michon ("Notice sur la Veritable Rose de Jericho," Paris, 1852), found near Jericho a plant until now unknown, belonging to the composite family, which has the same property as the *Anastatica hierochuntica*. This leads me to the statement that recently there were brought to Jerusalem for sale dry plants found on Jebel Kuruntel or Quarantania (Mount of the Temptation of Christ), west of Jericho. As I do not understand botany, I cannot properly describe it, and will only state that I have made the experiment of putting the plant in water, and found that the flower opened, whereas the stalks remained in the same situation, whether dry or wet, and whether the flowers were open or shut. I found it opened much quicker than the ordinary "rose of Jericho." The flowers of this new one are like daisies. Some are larger, some smaller. I send samples and also drawings of both kinds. Very likely this is the same as that known in the Middle Ages, and now found again by Michon and De Saulcy. In conclusion, I may mention that d'Arvieux is even perplexed why this plant is called a rose, and why the "rose of Jericho," as it would better be named "hygrometer naturel." Why it is called a "rose" I have explained above, and it is connected with Jericho because it is found in that neighbourhood; and the son of Sirach has mentioned that in olden time roses were planted at Jericho. Wolf, in "Jerusalem," Leipzig, 1857, p. 118, gives pictures of an opened and a shut specimen of the *Anastatica hierochuntica*, and says (p. 120) the darker ones when moistened in the evening shine if held against the light in finest ruby red. Whether the new found one (a daisy) does the same, I cannot tell.

[1] According to Zeller's "Bib. Wörterbuch," ii, p. 360, the small white flowers become horned double folded siliquæ containing rounded, sharp tasting seeds, and the branches of the plant when dying close together. Pictures of these plants, open and closed, are very seldom seen in books, and people who have not seen such, or the plant itself, cannot get a proper idea of it.

[2] *Ib.*, 4th ed., Jerusalem, 1897, ii, p. 298.

THE AGE OF THE INSCRIBED JAR-HANDLES FROM PALESTINE.

By the Rev. Professor A. H. Sayce, LL.D.

It is very unfortunate that thus far no inscribed jar-handle has been discovered by Dr. Bliss in an undisturbed stratum of *débris*. Owing to the rarity of early Hebrew inscriptions and the absence of chronological indications in them, it is impossible at present to date them with any approach to accuracy; the palæographical materials do not as yet exist. It is to archæology, therefore, that we must look for help; if once we can settle the date of a particular inscription, we shall at last have a basis on which to build up a Hebrew palæography. All attempts hitherto made to fix the age of a text from the form of the letters employed in it are necessarily worthless. They rest on a foundation of sand.

It is consequently to be hoped that the excavations of the present season may bring to light at Tell es-Sâfî an undisturbed layer of soil containing inscribed jar-handles, as well as pottery the age of which is known. Meanwhile, all that can be done is to examine the jar-handles found at Jerusalem and in the south of Judah from an archæological point of view, and see what indications of date may thus be gathered from them.

Dr. Bliss has found them associated with scarabs and other objects which take us back to the fourteenth century B.C., as well as with pottery of the pre-exilic period of Israel. But he has also found that wherever they occur the soil shows signs of disturbance, and that fragments of pottery of the Greek period have made their way into it. On the other hand, all indications of the Roman period are absent; the Maccabæan epoch is the latest to which the jar-handles can be referred. Indeed, if I understand him rightly, the latest epoch to which objects accompanying them can be assigned is that of the Exile.

The jar-handles are met with rather towards the top than towards the bottom of the strata, in which the pottery is predominantly that of the period from B.C. 1000 to B.C. 600. There is, therefore, a presumption that they also belong to this period; it is, however, a presumption only which a single contrary archæological fact could set aside. Let us now see what the archæological facts are.

(*From a Photograph.*)

JAR-HANDLE FROM TELL EL-AMARNA.

(1) The Jewish jar-handles do not stand alone. My friend Mr. D. C. Robertson, of Edinburgh, picked up on the site of Tell el-Amarna a similar handle, of which a photograph is here given. In shape and material it resembles the Jewish handles. Like them, it is ribbed, the ribs being two in number and formed in precisely the same way; the pottery itself, too, is red, and shows traces of having once been coloured white. The clay, however, is different, as the red colouring extends more or less throughout it; whereas in the case of the Jewish handles, while the surface has been burnt red, the clay underneath it is black. The Tell el-Amarna handle, consequently, cannot have been imported from the south of Palestine. On the other hand, the Egyptian and Jewish handles resemble each other in a very important particular. On both we have a cartouche, and the cartouche is stamped in the same place and in the same manner.[1] The cartouche of the Tell el-Amarna handle is that of the solar disc, and reads:—"The Solar Disc who issues forth from the glorious horizon." We thus know the date of the manufacture of the handle, that is to say, B.C. 1400. It need hardly be added that the cartouche was an Egyptian invention, and, like the winged solar disc, must have come from Egypt to Southern Palestine.[2]

(2) Several of the handles from Jerusalem have, in addition to the cartouche, another ornament, consisting of two concentric rings with a point in the middle. On one of them (No. 68 or 5)[3] two of these rings have been stamped over the cartouche. The ornament is found on scarabs of the time of Thothmes III in Egypt, and belongs to the age of the 18th, 19th, and 20th dynasties. It was revived in the late Roman period in, however, a somewhat different form, that of a point with a single circle surrounding it. It was not of Egyptian origin, but must have been imported into the Valley of the Nile from Canaan. It is a

[1] That the cartouche was stamped on the Jewish handles may be clearly seen from one of those from Jerusalem (No. 6) where there are traces of a double impression, the first impression not having been sufficiently deeply imprinted on the clay. Traces of the first impression have been left above the left wing of the solar disc.

[2] On one of the handles from Jerusalem (No. 5 or 8) the place of the cartouche is taken by an incised ornament which is a modified form of the Egyptian symbol of the Goddess Safekh.

[3] The Jerusalem jar-handles have two numbers attached to them, both of which I accordingly give.

distinguishing mark of the red Græco-Phœnician pottery of the eighth century B.C. which has been found in Cyprus, and was doubtless introduced into that island from the coast of Syria. After the sixth century B.C., or a little earlier, it disappears. The objects, therefore, found at Jerusalem on which it occurs will presumably belong to the pre-exilic period, and may be of any age from the seventeenth to the seventh century B.C.

(3) The winged solar disc on the Palestinian handles is of two forms, probably characteristic of different potteries. On those found at Jerusalem it has two wings; on many of those found by Dr. Bliss the wings are four in number. According to Dr. Birch, the four wings are not met with till the Persian period; the Palestinian symbol is, however, so unlike the Persian that they can have no connection with one another, and Dr. Birch's statement must be corrected in the light of recent discoveries. A negative statement is always dangerous in archæology.

A leading characteristic of the Palestinian symbol is that the ends of the wings are curved upwards (or downwards in the case of the two lower ones when there are four wings). This is contrary to the Egyptian, Assyrian, and Persian fashion. But it is also characteristic of the Hittite symbol as found at Boghaz Keui, and may be of Syrian origin. I believe it is due to a combination of the double-headed eagle (which is met with on the Hittite monuments of Boghaz Keui and Eyuk, and was originally derived from the *totem* of Lagas in Babylonia B.C. 2700) with the winged solar disc. This would explain the square head above the disc in the Palestinian examples, which would be a survival of the twofold eagle's head. As the Pterian cities were destroyed in the sixth century B.C., their monuments must belong to an earlier date, and we shall not be far wrong in supposing that the symbol had been carried as far north as the banks of the Halys before the eighth century B.C.

(4) The passage I have already pointed out in 1 Chron. iv, 21–23, seems to imply that the record relating to the royal potteries of Judah went back to pre-exilic times. This, however, is not certain, as a document of the beginning of the Persian period might have been described by the Chronicler as "ancient." But the corruption of the text and the reference to Moab favour an earlier date.

To sum up. I am inclined to refer the jar-handles to the eighth century B.C., though they may belong to the reign of Solomon. They can hardly be earlier, in spite of the extraordinary resemblance between them and the jar-handle from Tell el-Amarna. Future discovery can alone settle the question; palæography, it must be repeated, can tell us nothing.

While examining the jar-handles from Jerusalem in the Museum of the Palestine Exploration Fund I found an inscription on one of them that had never been noticed before. This is No. 42 (52). The word למלך above the winged disc is obliterated, and the disc itself is mostly gone. But below it can still be seen the two first letters of the name of the place from which the handle came. These are נב. There has been a third and last letter after them, which may have been ה, though there does not seem to be space for a wider letter than ו. In any case, the name must have been that either of the Judaite Nebo (Ezra ii, 29), or of the Benjamite Nob or Nobah (1 Samuel xxi, 1, &c.). In addition to the cartouche a concentric ornament has been stamped on the handle, and above the cartouche IV is incised.

September 21*st*, 1899.

INSCRIPTIONS FROM KERAK.

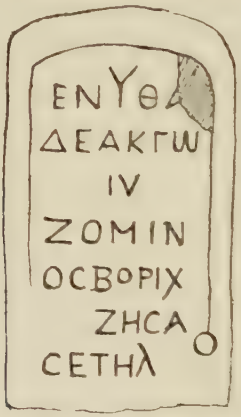
By Major-General Sir Charles Wilson, K.C.B., F.R.S., &c.

The inscriptions, Nos. 1 to 9, were copied from tombstones that were found in a rock-hewn tomb near Kerak by the Rev. A. Forder, a few years ago, and are now in the Konak at Kerak. The notes are from some remarks on the inscriptions which were kindly communicated to me by Professor W. M. Ramsay, M.A.

1. ἐνθάδε ΛΚΓΩ ΖΟΜΙΝΟC ΒΟΡΙΧ . . . . . ζήσας ἔτη λ′.

The names are not intelligible; "having lived thirty years." In the first line we should perhaps read ΕΝ+ΘΑ. The reading ἐνθα κατάκιτε (taking ΓΟ for ΤΕ) Δόμινος (commonly Δόμνος) Βορίχου seems too far from the copy.

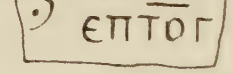
The inscription is very roughly cut, and part of it is illegible



1.

2. A number ending with ϛ', six, then *ἰνδ(ικτιῶνος)* ια', the eleventh year of an indiction. The date was possibly ϡϛ', 306, or A.D. 412. Now 412·3 was an eleventh indiction.

The lower part of a broken stone.



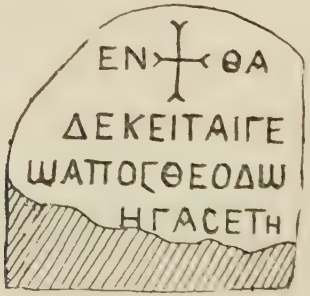
2.

3. *ἐνθάδε κεῖται* ΓΕΩΑΠΟC *Θεοδώ[ρου ζ]ήσας ἐτη*: probably ΓΕΩ[Ρ]ΓΙΟC.

"Here lies Georgios son of Theodore, who lived . . . years."

The date is probably the 4th century.

The upper portion of a broken stone.



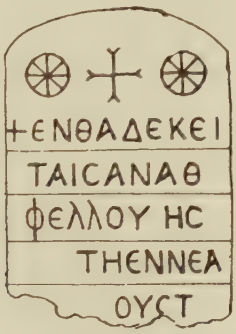
3.

4. *ἐνθάδε κῖται* Σαναθ Φέλλου [ζ]ήσ[ας ἐ]τη ἐννέα [ἔτ]ους τ'.

"Here lies Sanath . . . ? son of Phellus? having lived nine years. In the year 300."

Kerak was in the province of Arabia where the era was 106, and this would give the date as A D. 406, assuming that the date τ is complete. It is possible that one or two letters are lost at the end, but there did not appear to be any traces of broken letters. Perhaps also the wheels may have contained the symbol XP, as they were somewhat worn.

The upper portion of a stone.



4.

5. [—] ζήσασα ἔτ[η] τρία ἐνθάδε κῖται.

A fragment of a stone.

5.

6. *ἐνθάδε κῖτ[αι]* Μάξιμα ζησᾶ[σ]α ἔτη η'.

"Here lies Maxima, who lived eight years."

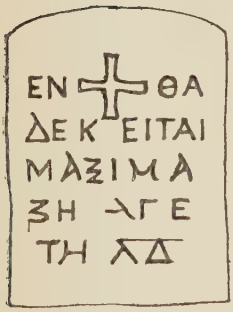
A perfect stone, fairly well cut.

7. [Σωσ]θένης? ζήσ[ας] αιδ'? ἔτη τέ[σσαρα]?: perhaps ζήσα[ς] δ ἔτη τέ[σσαρα] with number twice: or ζήσα[ς] ιδ' ἔτη τέ[σσαρα] καὶ δέκα].

A fragment of a stone; the letters are very high and badly cut.

6.

7.



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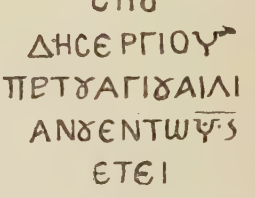

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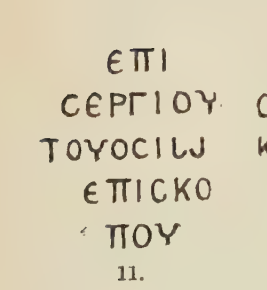

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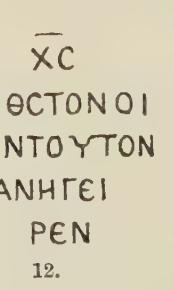

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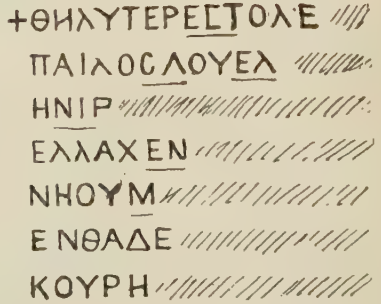


13.

8. ἐνθάδε κεῖται Μάξιμα ζη[σ]ᾶ[σ] ἔτη λδ'.

"Here lies Maxima, having lived 34 years."

A complete stone, but the inscription is very rudely cut.

9. ἐνθάδε κεῖται Νοῖνα ζησᾶσ[α] ἔτη.

"Here lies Noena, who lived . . ."

A fragment of a stone.

[All the above inscriptions probably date from the latter part of the fourth to the latter part of the fifth century A.D.]

10. An inscription in hexameters beginning θηλύτερ(αι) (or (αι)ς). Perhaps:—

θηλυτέραις τόδε[σῆμα]
παιδὸς ἀ[ποφθιμένοιο??
η . . . .
ἔλλαχεν . . . .
. . . . . .
ἐνθάδε . . . .
κουρη . . . .

This inscription is upon a slab forming part of the pavement of Aaron's Tomb on Mount Hor. The inscription has been laid face upwards and is almost completely worn away by the feet of pilgrims. The underlined letters are uncertain.

Nos. 11, 12, 13. These seem to read:—

σπουδῇ Σεργίου πρ[εσβυτέρου?] τοῦ ἁγίου Αἰλιανοῦ ἐν τω ως' ἔτει.

ἐπὶ Σεργίου τοῦ ὁσιω[τάτου] ἐπισκόπου.

Χ[ριστό]ς οι θ[εὸ]ς τὸν οἶκον τοῦτον ἀνήγειρεν.

The date ως', 806, is probably Seleucid, as that era is used very late. This would give A.D. 494. The Arabian Provincial era A.D. 106 would give A.D. 912, which is too late.

These three inscriptions are on a very fine mosaic at Medeba, which must be of about the same date as the great geographical mosaic in the Greek church at the same place.

December 8th, 1899.

LATIN INSCRIPTION FOUND AT BAALBEC.

By C. A. Hornstein, Esq.

When I was up at Baalbec at the beginning of September I heard that a tomb had just been discovered in a vineyard belonging to a Turkish official, near the Great Stone in the ancient quarries called Hajer el-Liblah. I went to see it, but found that it had all been broken up. As far as I could learn, it appears to have been an attached sarcophagus. The epitaph, however, had been preserved. Unfortunately, I had no paper with me to take a squeeze of it, but, having my camera, I took a photo.

The bas-relief over the inscription represents two soldiers pouring libations on a small altar or cippus. The reading is as follows:—

D M
AVREL . VICTV NVS PROT.
VIXITA NIS . XXXX . VIVITE
FELICESETNOSTRISPROFVNDI
TEMANSETMEMORESESTISVOS
NOBISCVMESSEFVTVROS . AVREL .
BAIANVSPROT . FRATRIPIEN
TISSIMOMEMORIAMINSTITV
IT

"D(iis) M(anibus)
Aurel(ius) Victu[ri]nus prot(ector).
vixit annis 40.
Vivite felices, et nostris profundite man(ibu)s.
Et memores estis vos nobiscum esse futuros
Aurel(ius) Baianus prot(ector) fratri pientissimo
memoriam institu it."

Translation:—

(1) "To the Gods Manes
(2) Aurelius Victurinus, bodyguard, lived 40 years.
(3) 'Live happy, and pour libations to our Manes.
(4) And remember that you must (one day) be with us.'
(5) Aurelius Baianus, bodyguard, has erected this
(6) Monument to his dearly beloved brother."

(*To face p. 71.*)

(*From a Photograph.*)

SCULPTURED AND INSCRIBED STONE AT BAALBEC.

Lines 3 and 4 of the translation appear to be a quotation of two hexameters, and addressed to the living.

(Deciphered by Le R. Père Germer-Durand, Augustinian Brothers, Jerusalem.)

Professor Ganneau writes :—"The inscription is curious enough, and Father Germer-Durand's reading of it seems to me to be, on the whole, satisfactory. I believe that the inscription has never before been published; if it has, I do not remember having seen it. The little philosophic address in the middle of it is evidently in verse (two hexameters), and must belong to the common stock-in-trade of sepulchral epigraphy. Probably it has been already met with in other epitaphs, and examples might be found by reference to the 'Corpus Inscriptionum Latinarum.' The first verse is wrong in its scansion: *et nostris* probably should be amended into *nostrisque;* as for mān(ĭbŭ)s, there is a syllable too much; perhaps we ought to allow for a pronunciation mān'bŭs (?)."

NEWLY-DISCOVERED TOMB ON MOUNT SCOPUS.

By C. A. Hornstein, Esq.

Some men digging out *howar* (soft limestone) on Mount Scopus, close to the road leading to 'Anâta and El 'Aîsâwiyeh, came unexpectedly on an old tomb. The entrance had been blocked up with loose stones, and then covered over with earth. The tomb consists of three chambers cut in the rock. The first, or vestibule, A, has a low doorway, 1 foot 9 inches square, on the east side, leading to Chamber B, and another of the same size on the south, opening into Chamber C. These entrances were closed by large blocks of stone, shaped somewhat like the stopper of a bottle, the narrow projecting part fitting into the entrance, the wider closing the rebate.

Entering Chamber B, we find a ledge or bench, X, raised about 3 feet from the ground, width from 3 feet 6 inches to 4 feet 7 inches, running round the room on the north, east, and south sides. On a level with this bench are six kokim or loculi, three

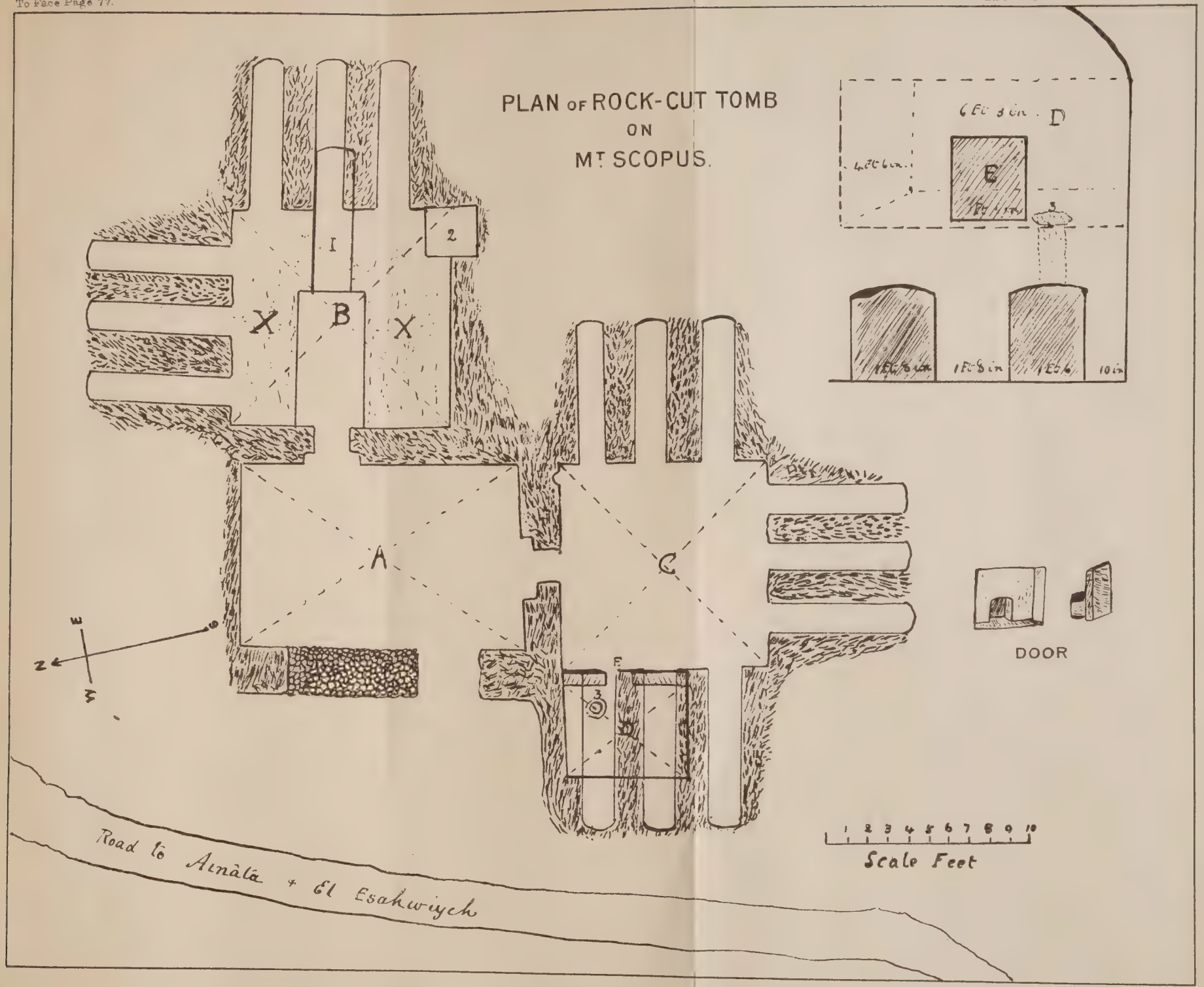
on the north and three on the east. Under the bench, and extending partly beneath the middle loculus on the eastern side, is another kok. The average length of these loculi is 7 feet 5 inches, width 1 foot 7 inches. On this bench were found 19 ossuaries, or bone chests, varying in length from 1 foot 4 inches to 2 feet 7 inches. Some are beautifully carved and have triangular lids, others are plain and have flat lids fitting in grooves. Four of these ossuaries have inscriptions in large plain letters (Nos. 1, 2, 3, 4). The first three are Greek, the last is Hebrew. There are a few letters on some of the other chests, but they are so effaced that it is difficult to make them out. We have an example in No. 8. No. 1 should read ЄPѠT(A)PIOY, the A being broken off. The same name, however, is incised on another chest; the letters in this case are very small, and separated between the ornamentation. They all are proper names:—No. 1, Erotario; No. 2, Protas; No. 3, Papos; No. 4, Yehohanan Bar-Zabia.

In the south-east corner there is an alcove, 2 feet 9 inches by 2 feet 8 inches, and about 4 feet deep, which is partly filled with bones and dust.

Chamber C has no ledge, and contains nine loculi on a level with the floor. Near the north-west corner, and 3 feet 2 inches from the ground, is an opening, E, which leads to another room, D, 6 feet 2 inches by 4 feet 6 inches, excavated over the loculi on the west side. In the floor is a circular hole, 1 foot 6 inches in diameter, which leads down to Kok 1. This little chamber seems to have been used either for the collection of bones, &c., after the bodies had decayed, or as a depository for ossuaries, of which several were found here. There were nine altogether in C and D, quite plain and with flat lids. The Hebrew inscription No. 5 was found on one of these chests; Nos. 6 and 7, on fragments of lids; Nos. 5 and 6 appear to be names; but what No. 7 is it is difficult to say.

Ismaïn Bey, head of the Public Instruction Department, has had the principal ossuaries removed to the Government school near Herod's Gate.

Jerusalem, *October* 30*th*, 1899.



J. Akerman, Photo-lith London

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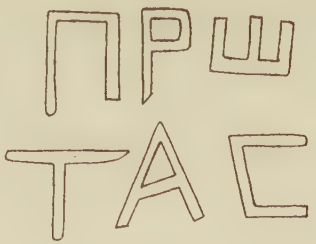

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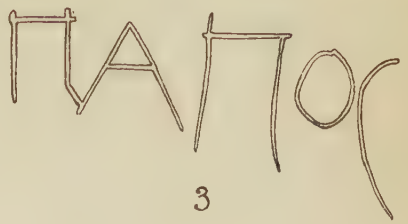

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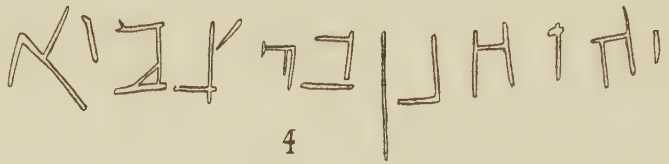

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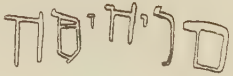

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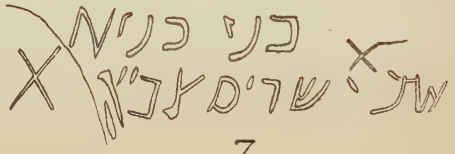

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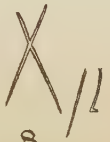


8

one inch.

J Akerman, Photo-lith London

NOTES ON THE OCTOBER "QUARTERLY STATEMENT."

I.—By Colonel C. R. Conder, LL.D.

P. 289. *Tell Zakariya.*—Dr. Bliss has found so many antiquities as to which there can be no dispute that he can afford to neglect less certain indications of date. As regards masonry with rude bosses, I do not know of a single example, in Syria and Palestine, which can certainly be dated before the Roman period, and his masonry closely resembles that of the Byzantine age in dated buildings. He found Roman pottery at the same depth with that of the door sills of the fort, and though the jar-handles appear to be some centuries earlier I can see no proof that this building was erected by Rehoboam. The name has nothing in common with that of Azekah. Why Thothmes III (1600 B.C. according to Brugsch) and Amenophis III (1500 B.C. on the same authority) should be described as "about 300 years before a commonly received date of the Exodus" I cannot understand. The common date for the Exodus is about 1500 B.C. Bunsen's theory—which is not founded on any monumental basis—was accepted by Brugsch, but has never been generally accepted by authorities on Egyptian history. It is quite irreconcilable with the Old Testament chronology, and in Germany Dr. Winckler and Dr. Zimmern have pronounced in favour of the view (based on the notice of the *'Abiri* in the Amarna letters, and on the mention of Israel in Ruten, or Palestine, in Mineptah's time) that the Hebrew conquest occurred about the end of the reign of Amenophis III, which agrees with the three definite statements of date in the Hebrew of the Old Testament.

P. 324. *Antiquities at Tell es-Sâfi.*—It is interesting to note how many Egyptian remains occur in the Philistine ruins, whereas none are found at Jerusalem as far as I have gathered. The Egyptians held the plains from 1600 to 1200 B.C., but they had little object in holding the mountains when protecting their great trade route to Babylonia, and their chariots were of little use to them in such mountains.

The fine jar with a bird and a sort of Maltese cross reproduces two features of ornamentation found by M. Chantre in his

Cappadocian excavations, in connection with bronze figures in Hittite dress and seals in Hittite characters. Dr. Bliss may, perhaps, be so fortunate as to discover such seals, or cuneiform texts, and the objects marked as "Babylonian" appear to me to be very probably native Canaanite work, for we have now many seals of the same character accompanied not by cuneiform but by Hittite symbols.

The wonderful character of M. Chantre's discoveries is hardly yet recognised. He has found 13 letters in Hittite language, but written in cuneiform, and a long tablet in Cypriotic characters in the same language, describing the conquest of Cappadocia by Tarkutimme (probably about 2200 B.C.). These discoveries ought to set the Hittite question at rest. My translations have appeared in the "Times" (October 10th and 24th, 1899). We are still, however, in want of evidence of the history of this race in the south. So far the only indication is given by the Hittite seal found by Dr. Bliss at Lachish, which is probably as old as 1600 B.C. or earlier.

II.—By Professor CLERMONT-GANNEAU, LL.D.

P. 290. *Royal Israelite Jar-handles.*—I am glad to find that Canon Dalton adopts as more rational the explanation of the Hebrew legends proposed by me: "For the King.—Hebron"; "For the King.—Socho," &c., *i.e.*, "For the King's service," &c.

P. 297. *Rude Stone Monuments in Palestine.*—"No one had ever seen them in Palestine." Their existence was, as a matter of fact, established long ago, especially to the east of the Jordan, ; on this point see, amongst other authorities, the explorations of the Duc de Luynes in 1864 ("Voyage d'Exploration à la Mer Morte," &c., in vol. i, pp. 135, 136, 158, 159, 176, 178, with numerous accurate illustrations of various dolmens).

P. 305. *Reliquary of Crusaders, with Relic of Oswald King of Northumbria.*—This precious memorial was published two years ago in my "Rec. d'Arch. Or.," vol. ii, pp. 234–239 (August, 1897), with the needful explanations. Photographic reproductions of them will appear in one of the ensuing parts of my "Album d'Antiquités Orientales."

P. 312. *Tomb of Ja'far, first cousin of Muhammad.*—Thanks to a drawing courteously sent me by Sir Charles Wilson, I have been enabled to decipher and published in facsimile the fragment of a Cufic inscription referring to it ("Rec. d'Arch. Or.," vol. iii, pp. 278–283). In connection with this, I have studied in detail the curious tradition to which this first conflict between Byzantines and Mussulmen has given rise amongst the latter.

P. 314. *Nabathæan Inscriptions.*—Sir Charles Wilson has been kind enough to place these epigraphical materials at the disposal of our Académie des Inscriptions et Belles-Lettres; they arrived just in time to be utilised for the next part of the Aramæan inscriptions of the *Corpus*, now in the press. I have the pleasure of thanking him and the Committee in the name of the Commission of the Corpus Inscriptionum Semiticarum.

P. 315. *Adr* or *Adar.*—This new local name allows us to fill up with certainty a regrettable lacuna in the itinerary (described by Abu Shâma) of Saladin marching from Damascus upon Karak, at that time occupied by the Crusaders (*cp.* my "Rec. d'Arch. Or.," vol. iii, pp. 297, 303, 350).

P. 332. *Stone Seal of Tell es-Sâfi.*—Seal No. 2, judging from the shape of the stone and the subject engraved upon it, appears to me to belong to the Persian period rather than to the Babylonian or Assyrian.

P. 332. *Amulet in blue and yellow Glass.*—I possess an exactly similar grotesque head found in Cyprus, made of the same material and in the same colours.

P. 333. *Mould for casting Bell.*—An old bell of a similar kind, but of much larger dimensions, was found in the neighbourhood of Beyrout. I have given a phototype reproduction of it in my "Album d'Antiq. Orient." (Pl. XLIX, No. 3).

P. 342. *Copper Spoon.*—A similar spatula, of the same material but broken, was found by me in one of the graves of the Necropolis at Jerusalem. It is engraved in my "Archæological Researches in Palestine," vol. i, p. 414.

P. 353. *Scarabæus on the Stamped Jar-handles.*—Colonel Conder says: "I did not see it suggested that the figure on these handles is a rude scarabæus." I myself, however, made the very same suggestion three months ago (*Statement*, July, p. 204): "The enigmatical symbol is nothing but *the Egyptian scarab with four wings expanded.*"

P. 356. לְמֶלֶךְ.—Professsor Gautier rightly notices Professor Sayce's singular grammatical oversight. If he will refer to p. 206 of the preceding *Statement*, he will find that the only possible readings *lammelek* (to the King) or *lemelek* (to the King of) had already been put forward by me; he will also find there the extrinsic reasons which induced me to adopt the first.

III.—By Rev. W. F. Birch, M.A.

Gibeah (p. 343).—The mention of both Geba and Gibeah of Saul in Isa. x, 29, seems fatal to the identification of this city Gibeah with Geba the priestly city (Josh. xxi, 17).

Ramathaim Zophim (*ibid.*).—If this city be placed at Er Ram (Ramah of Benjamin), how came Saul, who lived at Gibeah, less than three miles from Ramah, not to know Samuel even by sight (1 Sam. ix, 18)?

Nob (p. 345).—Isa. x, 29, seems to require Nob to have been in the line of march from Geba to Jerusalem. Bîr Nebâla is therefore not suited to represent Nob, being out of the required line.

THE
PALESTINE EXPLORATION FUND.

NOTES AND NEWS.

The present number contains Dr. Bliss's report on the excavations at Tell ej-Judeideh up to December 18th, when the work of the season was stopped by the heavy winter rains. Excavations were resumed there on March 19th.

On January 5th a severe shock of earthquake occurred at Tiberias and Safed. Dr. Torrance sends the following account of it from Tiberias :—

"On January 5th, about 2 a.m., we were awakened by an earthquake, which must have lasted from five to ten seconds. I have felt several shocks during my 15 years' residence here, but this was the most severe. No damage was done to buildings as far as I can ascertain, but many people fled into the fields and remained there a considerable time in fear and trembling, some afterwards became ill from the effects of the exposure. From correspondence I learn the earthquake extended to Mount Lebanon, to Jerusalem, and to the coast of the Mediterranean."

Dr. Wilson writes from Safed :—

"In the early morning of January 5th, about 2.40 a.m., Safed experienced a sharp shock of earthquake. I was awakened by the rocking of the house—east and west. This increased in intensity for 10 or 15 seconds and then ceased suddenly. The previous day had been in the forenoon bright and crisp and sunny, but at midday a sudden change came, and the town became shrouded in mist. Towards sunset one noticed towards the south a heavy bank of black clouds, surmounted by a bright band of red. Everything seemed to point to a thunderstorm. At the time of the earthquake there was an ominous stillness in the

air, which was suddenly broken by the shouts and cries of the people. There was great alarm amongst the Moslems, Christians, and others, and the Jews were summoned to their synagogues for prayer. A large proportion of the population spent the remainder of the night out of doors in anticipation of a renewal of the earthquake. The occurrence is of interest, as being the first considerable shock, I believe, since the great earthquake, when so much of the town was destroyed. I have not yet heard whether the shock was general over the country, or localised to Safed and Nazareth."

A number of moulds of the various objects found in the excavations have been received at the office of the Fund, consisting of inscribed weights, jar-handles, scarabs, &c. They can be seen, and casts of several can be obtained, on application to Mr. Armstrong.

The concluding volume of Professor Ganneau's "Archæological Researches in Jerusalem and its Neighbourhood" has been published and issued to subscribers. This completes the set of four vols. as advertised under the title "Survey of Palestine." There are only ten sets left of the first 250 copies of this valuable work. Those who wish to secure a set at £7 7*s.* before the price is raised should fill up the form and send it to the Secretary of the Fund.

In order to make up complete sets of the "Quarterly Statement," the Committee will be very glad to receive any of the back numbers.

Dr. Bliss's detailed account of his three years' work at Jerusalem, published as a separate volume, with the title "Excavations at Jerusalem, 1894–1897," and copiously illustrated with maps and plans, may be procured at the office of the Fund. Price to subscribers to the work of the Fund, 8*s.* 6*d.*, post free.

The "Flora of Syria, Palestine, and Sinai," by the Rev. George E. Post, M.D., Beirût, Syria, containing descriptions of all the Phaenogams and Acrogens of the region, and illustrated by 441 woodcuts, may be had at the office of the Fund, price 21*s.*

The income of the Society from December 28th, 1899, to March 23rd, 1900, was—from Annual Subscriptions and Donations, including Local Societies, £630 10*s.* 10*d.*; from Lectures, £2 12*s.* 6*d.*; from sales of publications, &c., £131 19*s.* 10*d.*; total, £765 3*s.* 2*d.* The expenditure during the same period was £547 1*s.* 3*d.* On March 24th the balance in the Bank was £489 4*s.* 2*d.*

Subscribers in U.S.A. to the work of the Fund will please note that they can procure copies of any of the publications from the Rev. Professor Theo. F. Wright, Honorary General Secretary to the Fund, 42, Quincy Street, Cambridge, Mass.

The price of a complete set of the translations published by the Palestine Pilgrims' Text Society, in 13 volumes, with general index, bound in cloth, is £10 10*s.* A catalogue describing the contents of each volume can be had on application to the Secretary, 38 Conduit Street.

The Museum at the office of the Fund, 38 Conduit Street (a few doors from Bond Street), is open to visitors every week-day from 10 o'clock till 5, except Saturdays, when it is closed at 2 p.m.

It may be well to mention that plans and photographs alluded to in the reports from Jerusalem and elsewhere cannot all be published, but all are preserved in the office of the Fund, where they may be seen by subscribers.

While desiring to give publicity to proposed identifications and other theories advanced by officers of the Fund and contributors to the pages of the *Quarterly Statement*, the Committee wish it to be distinctly understood that by publishing them in the *Quarterly Statement* they neither sanction nor adopt them.

Subscribers who do not receive the *Quarterly Statement* regularly are asked to send a note to the Acting Secretary. Great care is taken to forward each number to those who are entitled to receive it, but changes of address and other causes occasionally give rise to omissions.

Tourists are cordially invited to visit the Loan Collection of "Antiques" in the Jerusalem Association Room of the Palestine Exploration Fund, opposite the Tower of David, Jerusalem. Hours: 8 to 12, and 2 to 6. Maps of Palestine and Palestine Exploration Fund publications are kept for sale.

Photographs of Dr. Schick's models (1) of the Temple of Solomon, (2) of the Herodian Temple, (3) of the Haram Area during the Christian occupation

of Jerusalem, and (4) of the Haram Area as it is at present, have been received at the office of the Fund. Sets of these photographs, with an explanation by Dr. Schick, can be purchased by applying to the Secretary, 38 Conduit Street, W.

Branch Associations of the Bible Society, all Sunday Schools within the Sunday School Institute, the Sunday School Union, and the Wesleyan Sunday School Institute, will please observe that by a special Resolution of the Committee they will henceforth be treated as subscribers and be allowed to purchase the books and maps (by application only to the Secretary) at reduced price.

The Committee will be glad to receive donations of Books to the Library of the Fund, which already contains many works of great value relating to Palestine and other Bible Lands. A catalogue of Books in the Library will be found in the July *Quarterly Statement*, 1893.

The Committee acknowledge with thanks the following :—

"Recueil d'Archéologie Orientale." Publié par Professor Ch. Clermont-Ganneau. Tome IV, Livraison 1, 2, Janvier, 1900. *Sommaire :*— § 1. Jarres Israélites marquées à l'estampille des rois de Juda. § 2. Cinq poids Israélites à inscriptions.

"The Hebrew Tragedy." By Colonel C. R. Conder, R.E. From the publishers, Messrs. Blackwood and Sons.

"The Precious Stones of the Bible." By Edward Clapton, M.D. From the Author.

For list of authorised lecturers and their subjects, *see* January *Quarterly Statement*, p. 5.

STATEMENT OF RECEIPTS AND EXPENDITURE FOR THE YEAR ENDING 31st DECEMBER, 1899.

Receipts.

	£	s.	d.
To Balance in Bank 31st December, 1898, including £33 17*s.* 6*d.* paid in advance for 1899	674	9	1
Donations and Subscriptions	2,081	18	0
Proceeds of Lectures	9	5	0
Sales of Books, Maps, Photographs, Casts, and Lantern Slides	609	19	11
	£3,375	12	0

Expenditure.

	£	s.	d.
By Exploration..	1,495	11	1
Printing, Binding, including *Quarterly Statement*	513	10	11
Maps, Lithographs, Illustrations, Photographs, Casts, Lantern Slides, &c.	200	3	3½
Advertising, Insurance, Stationery, and Sundries	111	9	6
Postage of the *Quarterly Statement*, Books, Maps, &c.	151	11	11
Salaries and Wages	397	13	1
Office Rent, Gas, Coals, &c.	264	6	10½
Balance in Bank 31st December, 1899, including £41 11*s.* 6*d.* subscriptions paid in advance for 1900	241	5	4
	£3,375	12	0

Examined and compared with Vouchers, and Cash and Bank Books and found correct.

Walter Morrison, *Treasurer.*

TREASURER'S STATEMENT.

The income of the Fund for 1899 amounted to £2,701 2*s.* 11*d.*, made up as follows :—

From Donations and Subscriptions, £2,081 18*s.* 0*d.*; from sales of publications, £609 19*s.* 11*d.*; from Lectures, £9 5*s.* 0*d.*; being an increase of £100 17*s.* 1*d.* over that of 1898.

At the end of 1898 there was a balance in the bank of £674 9*s.* 1*d.*, making the total amount available for the year, £3,375 12*s.* 0*d.*

The expenditure during the same period was :—

On exploration, £1,495 11*s.* 1*d.* Excavation work was carried on during the greater part of the year.

On printing, binding, including the *Quarterly Statement*, £513 10*s.* 11*d.*

On maps, lithographs, illustrations, photographs, &c., £200 3*s.* 3½*d.* Against these two sums the Fund received from the sale of all publications, £609 19*s.* 11*d.*

On advertising, insurance, stationery, &c., £111 9*s.* 6*d.*

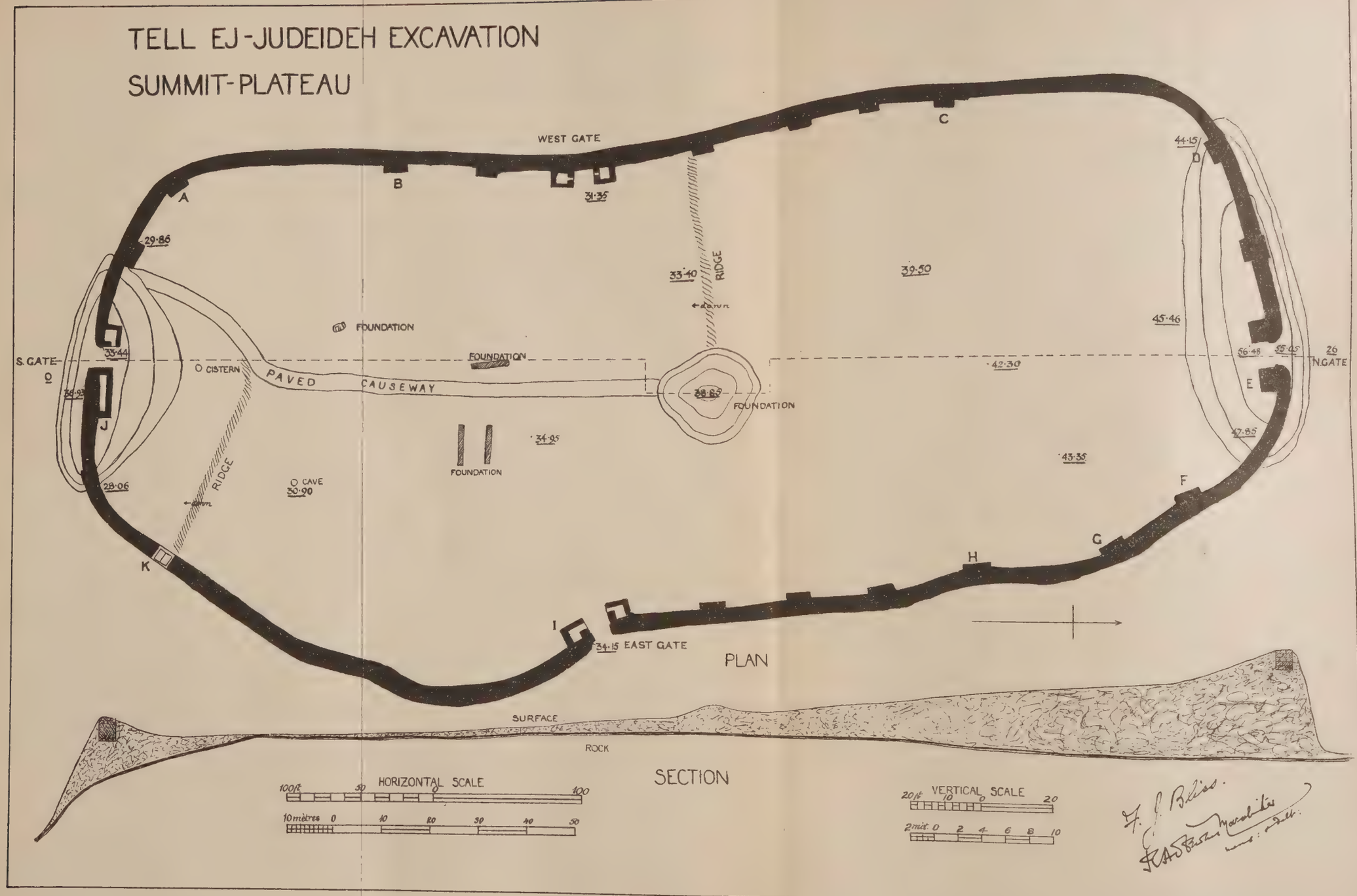
On postage of books, maps, &c., including the *Quarterly Statement*, £151 11*s.* 11*d.*

The management, including rent of office, £661 19*s.* 11½*d.*

On December 31st, 1899, the balance in the Bank was £241 5*s.* 4*d.*

Assets.	£	*s.*	*d.*	Liabilities.	£	*s.*	*d.*
Balance in Bank, December 31st, 1899.. ..	241	5	4	Printers' Bills and Current Expenses	243	13	4
Stock of Publications in hand, Surveying Instruments, Show Cases, Furniture, &c.							
In addition there is the valuable library and the unique collection of antiques, models, &c.							

Walter Morrison, *Treasurer.*



Martin, Hood & Larkin, Photolitho, Gr, Newport St. W.C.

FIRST REPORT ON THE EXCAVATIONS AT TELL EJ-JUDEIDEH.

By F. J. Bliss, Ph.D.

In the heart of the Shephelah there is a chain of hills from five to six miles long, running N.N.E. from Beit Jibrín. The range terminates abruptly to the north in the bold Tell Zakaríya, 1,214 feet above the sea, and 350 feet above the Vale of Elah or Wady es-Sunt which sweeps around its eastern and northern sides. The southernmost hill is Tell ej-Judeideh (1,297 feet), from the summit of which the ground drops somewhat gently to the Wady of the same name, near Beit Jibrín. Between these two hills are several others, separated by saddles, notably Khurbet 'Askalún (1,185 feet) and Khurbet 'Okbur (1,223 feet). From all the summits there is a magnificent view of the Philistine plain and also of the Judæan hills. Situated near the border between the Hebrews and the Philistines, this range was naturally of strategic importance, commanding as it did at least one of the great highways to Judæa. We have described the fortress, probably Jewish, excavated by us at Tell Zakaríya. The present report announces the discovery of a fortification at Tell ej-Judeideh. Traces of large buildings are also found at 'Askalún and at 'Okbur.

My first visit to Tell ej-Judeideh was made in June, 1897, when I was led by its commanding position and by the ancient types of pottery shown on its surface to include it in the area asked for excavation. Before we moved camp from Tell es-Sáfi, late in November, 1899, I rode over to the place and spent an hour or two in a study of the superficial indications, with a view to laying out the work. The Tell itself, *i.e.*, the accumulation of *débris*, occupies the south end of the southernmost hill of the range first described. The main axes of the Tell are directed to the cardinal points. The top is fairly level, with a slight mound at the south end and with a more decided mound at the north. The line of the city wall, either along its outside or its inside face, could be traced almost entirely

around the edge of the Tell. In general, only one course of stones appeared, but in several places from two to three courses were seen to crop up above the surface of the slope. Indications of one tower were observed. I decided that in the short time available before the winter rains I should confine myself to working out the fortification, and to determining the depth and nature of the accumulation.

Work was begun Monday, November 27th, and continued till Saturday, December 16th. Allowing for the time lost in consequence of the rain, and for the time taken in restoring the ground, the number of days devoted to excavation was not greater than 14, with an average of 17 men a day. The main results of the work are shown in the plan now submitted. The city wall follows the natural contours of the hill, the face being slightly curved in many places. At the north and south gates the curve is very pronounced. Gateways were found at the north, south, and east, and proof of a fourth was found at the west, though the sill itself has been removed. Twenty-four towers were excavated, projecting inward from the inside face. The eight towers flanking the four gateways were probably all hollow, but the remaining 16 are mere buttresses of solid masonry.

Levels were carefully taken on the top of the Tell, and the results are shown on the plan and section. The surface levels are marked in feet and decimals of feet, with reference to a point on the slope outside the south gate, which point is taken as zero. As I have stated, the summit is fairly level, the rise between the north base of the south mound and the south base of the north mound being only 17 feet, or about 1 in 40. At the point marked "cistern," near the south gate, rock is seen within a foot of the surface. Shafts were sunk at the points marked 34·95, 33·40, 39·50, 42·30, and 43·35, with the following results :—

At point	34·95	rock was found at		5½	feet.
„	33·40	„	„	6½	„
„	39·50	„	„	12	„
„	43·35	„	„	15	„
„	42·30	„	„	16	„

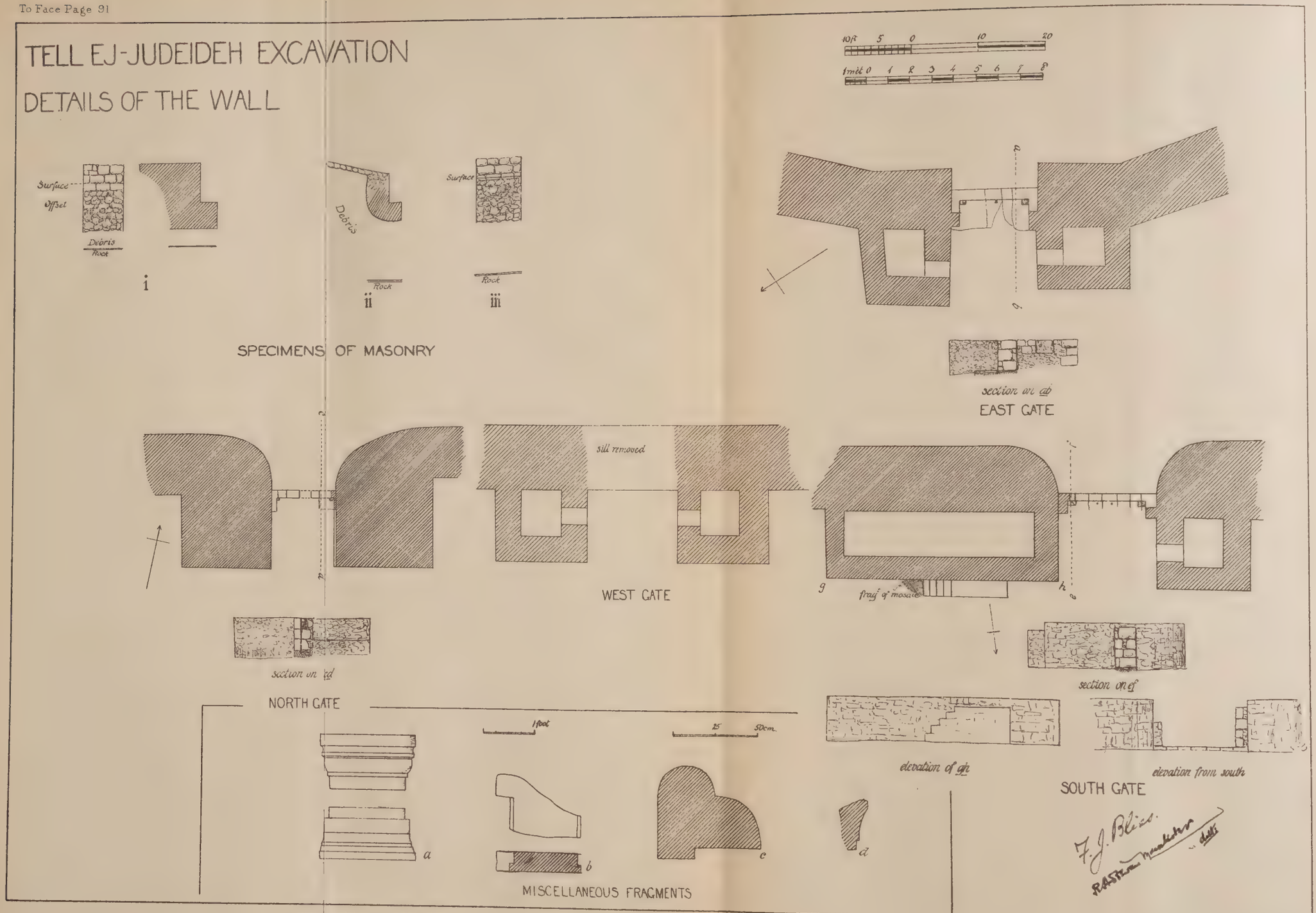
At the last point there were 3 feet of virgin soil on the rock, giving an accumulation of only 13 feet. Thus at no point between the north and south mounds have we any great amount of *débris*. South of the gentle swelling in the centre of the Tell marked "foundation" the accumulation appears to range from 1 foot to 6½ feet, while to the north of this point it is somewhat greater, ranging from 12 to 15 feet. In two of the shafts ribbed ware, probably Roman, was found to a depth of 2 or 3 feet, but otherwise the pottery was Jewish and pre-Israelite, including some of the very earliest types. One large jar with the characteristic "Amorite" ledge handles was found near the rock. This was apparently buried with a purpose, but unfortunately it was cracked and could not be removed whole. At the north mound the accumulation appears to be about 30 feet.

An examination of the city wall proves that this was built after most of the *débris* now found on the Tell had accumulated. Three shafts were sunk on the slope along its outside face, and the results may be seen on Plate II, above the heading "Specimens of Masonry." Specimen i shows two courses of rude rubble above the surface, each course about 18 inches high; one course of rude rubble below the surface resting on 6 feet of small uncoursed rubble, between which and the rock are 3 feet of *débris*. Four feet from the base of the wall a footing of 3 feet projection occurs. Specimen ii shows a cross-section of the wall at another point. Here the outside face stands for 7 feet below the present surface, the lower 2½ feet being a footing, which rests on 9½ feet of *débris*. The wall here, as at numerous other places measured, is 10 feet thick, but the inner half consists merely of one course of stones resting on the surface, between which and the rock there must be 15 feet of *débris*. Specimen iii shows three courses of rubble from 12 to 22 inches in height, above the surface, resting on 7 feet of small uncoursed rubble, between which and the rock are 8 feet of *débris*. Thus we find the outside face built on an accumulation above the rock, ranging from 3 to 9½ feet. As the wall does not rest on the rock, its outside face must have had some underground foundation; the ground-line at the time

of building appears to have been the line between the coursed and the uncoursed rubble, which is practically the present ground-line. Hence the accumulation in the Tell, except at the north and south mounds, appears to be hardly any greater than at the time when the wall was built. When the wall itself was destroyed the stones appear to have rolled down the slopes, which are steep at every side. In a trench 135 feet long and about 4 feet deep, excavated along the inside face, this was seen at many points to rest on *débris*.

The ground-line at the gates is determined by the levels of the door-sills. Rock was not searched for immediately under the north mound, but its level can be assumed with safety. Immediately to the north of the north gate, at the point marked 26, rock crops up at the surface; at the point marked 42·30 rock was found at a depth of 16 feet, or 26 feet above the zero point. These two points, then, north and south of the mound, are at the same level, and it is not probable that in the 225 feet between them there is much change of level. The surface of this mound at a point above the door-sill is at the level 55·05, or 29 feet above the assumed rock-level. The door-sill is 5 feet below the surface, or 24 feet above the rock. These 24 feet represent the accumulation of *débris* before the gate was built. As the maximum accumulation on the flat part of the Tell is only 15 feet, it would appear that an especially important building had existed here in early times. The upper 5 feet of *débris* burying the door-sill was caused by the destruction of the wall, and consists mainly of fallen stones. The low south mound appears to be due merely to the destruction of the gate and towers.

We may now describe the wall in detail. It has a uniform thickness of 10 feet, except at the places where it is strengthened by inner buttresses. It is built of rude rubble, brought to courses above the surface, and laid without mortar. The stones are roughly dressed, and much weathering has obliterated all tool-marks. As stated above, the towers all project inwards from the inside face. Some are roughly bonded into the main wall; the rest are without bond. The entire outlines of two towers



Martin, Hood & Larkin, Photolitho, Gt. Newport St. W.C.

appear on the surface; lines of stone, or in some cases a single stone, gave us a hint as to where to dig for seven or eight others, and the rest were found by trenching. Twenty-four towers were found in all. These are all the towers of which any traces remain, as an exhaustive search for others was conducted. This search was rendered somewhat difficult by the thick scrub which grows along the edges of the Tell. It appears probable, however, that towers must have existed in the spaces between A and B, C and D, I and J, and perhaps between E and F, and G and H. The towers appear to have been laid out without any especial regard for spacing. Omitting the spaces just mentioned, as well as the openings for the gateways between the flanking towers, the spaces between the towers are as follows:—Six range from 35 to 37 feet; five range from 40 to 44 feet: one is 46½ feet; three range from 50 to 52 feet. With the exception of the tower flanking the south gate to the east, which is 34 feet long, the faces range in length from 13 feet 6 inches to 15 feet 2 inches: the standard measurement appears to be 14 feet, as 17 out of the 23 measure within 3 inches of this number, eight being 14 feet exactly. The projections of the solid buttresses range from 3 feet 3 inches to 4 feet 11 inches. The chambers in the towers flanking the gates measure about 6 feet by 7 feet, with walls from 3 to 4 feet thick: exception should be made of the long tower at the south gate, which contains a chamber 28 feet long. The towers flanking the north gate are drawn as though solid, no chambers having been found in them, but it is quite possible that these are ruined below their ground level.

The south gate (*see* Plate II) is fairly well preserved: the east jamb stands to a height of about 7 feet, its ruined top being only 1 foot under the surface. The masonry is better squared and dressed than that of the main wall, the comb-pick dressing having been used. The door-sill consists of several slabs of stones, 14 inches wide; the gate was double, as shown by the central bolt-holes, as well as by the two sockets for the door-posts, which measure 16 inches by 10 inches and 14 inches square respectively. The opening is 10 feet in width. Search for steps leading outward from the gate was unsuccessful. A

pavement was found inside the gate. At about the level of this pavement there is an entrance to the small flanking tower at the west. No entrance was found to the long tower to the east; this tower, however, contains a chamber, 28 feet long by 7 feet broad; it is approached by a flight of steps (*see* elevation, *g*, *h*), which is ruined 14 inches below the top of the remains of the tower; hence we infer that this tower had been ruined below the level of its flooring, and consequently below the level of the door from which it was entered. At the base of the steps was found *in situ* a very small portion of mosaic, in white and red tesserae, 1 inch square. The exterior wall of the tower is at this point covered with plaster, held in place by an inner coating of potsherds, showing the broad ribbing of Roman or Byzantine times. The pottery found in connection with the excavation of all the gates showed these same types.

The east gate had been blocked up, showing that at some period after its construction this entrance was no longer used. The city wall does not round inwards towards the gate, as in the case of the north and south gateways. The gateway was double, the post-sockets measuring 17 inches by 8½ inches and 16 inches by 10 inches respectively. The opening is 10 feet 3 inches long. As the entrances to the flanking towers are 2 feet 8 inches above the level of the sill of the gateway, these towers must have been approached by steps from the pavement found within the gate, though no such steps were found. No signs of steps were found leading down the slope outside the gate. The door jambs consist of rude rubble, in contrast to the better masonry at the north and south gates.

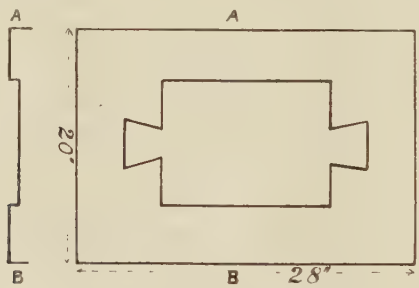
The north gate is very well preserved, the north jambs standing to a height of about 5 feet, their ruined tops having been found immediately under the surface. The jambs are dressed with a chisel pick, making long strokes; no mortar appears to have been used. The east jamb is eaten away by a series of furrows, plainly caused by the overlapping of iron sheets, with which the gate-post must have been plated; this jamb also contains a socket for the insertion of a transverse

bolt for securing the gate. The sill is 14 inches wide; the gate-opening measures 8 feet 7 inches, or some 18 inches less than the north and east gates. As mentioned above, no chambers were found in the flanking towers, but we have proved that the entrance to the large tower at the south gate was several feet higher than the sill, hence the towers in question may be ruined below the chamber-levels, though no steps were found. Unsuccessful search for steps leading down the very steep slope to the north was made. Beyond the north mound, outside the city wall, the hill trends to the north-east for about 1,000 feet. Rock crops up here and there, and the accumulation of *débris* is very slight, hardly 5 feet at the most.

The two hollow towers, only 14 feet apart, at the west, directly opposite the two towers flanking the east gate, strongly suggest that a gateway once existed here also. The level to which the wall is here ruined relative to the tower entrances admits of the supposition that the door-sill has been removed. There may possibly have been a fifth entrance at the point K, as two large slabs of stone were here found on the line of the city wall.

As to the date of this wall, we have shown that it represents the latest construction on the Tell after most of the *débris* now found had accumulated. This *débris* contains some of the earliest types of pre-Israelite pottery. The pottery found in connection with the gates and their flanking towers, however, is Roman or Byzantine. Similar types are found scattered over the surface of the Tell and also to a slight depth below the surface. The mosaic at the south gate cannot be earlier than the Roman period. Unfortunately the architectural fragments are very few, but all appear to be late. These are figured on Plate II: *b*, *c*, and *d* were found near the south gate; *b* appears to be a portion of a window. Unsuccessful search was made for fragments which might have fallen outside the gate. The two fragments marked *a* were found near the "foundation" in the centre of the Tell; they are evidently the base and capital of a column. On the surface of the north mound above the gate was found the stone

shown in the cut. It is 28 inches long by 20 inches high, with ½ inch sinking in the centre. It appears to have been designed for an inscription, but as the surface is perfectly smooth with no signs of lettering nor of holes for the insertion of a metal plate, the intention was evidently abandoned.[1] From the indications shown by the excavation of Tell ej-Judeideh up to date, we gather that the place was inhabited in early pre-Israelite times, as well as in the Jewish period, and was fortified during the Roman period, or even later. No signs of an earlier fortification have been found. The superficial wallings marked "foundations" probably date from this last period, as well as the "paved causeway," also superficial, although it should be noticed that this does not appear to lead to the south gate.



Stone found at North Gate.

As mentioned above, the pottery strewn over the surface includes Roman ware, but many earlier types are found, among which are several mutilated fragments of jar-handles showing the winged figures with which Hebrew inscriptions dedicating the jar to the king are always associated. One jar-handle with the stamp of a Hebrew seal was picked up on the surface by Showkat Effendi. It contains two proper names in two lines divided by two parallel bars. The first name is clearly הושע —Hosea. The absence of the ל of possession is unusual. The second name appears to be צפן, though the first letter is somewhat doubtful. Assuming this reading, we have a

[1] Similar stones, some inscribed, some uninscribed, are found in Byzantine ruins in North Syria.

name which appears on stamp No. 2 figured on p. 18 of the January *Quarterly* for the current year. This seal has two lines of writing; the upper line reads לצפנ־א, with a vertical mark between the two last letters; the lower reads מעץ, with a fracture before the ב, allowing space for one more letter. Taking the vertical mark as a hyphen and supplying the missing letter we read לצפן אבמיעץ, though we admitted that neither word appears as a name in the Old Testament. The discovery of the Tell ej-Judeideh seal appears to justify the reading of the first name as צפן.

I may now describe several sites in the Shephelah, some of which are included in our permit.

Khurbet 'Okbar.—This is on the range described at the beginning of the report, about midway between Tell Zakarîya

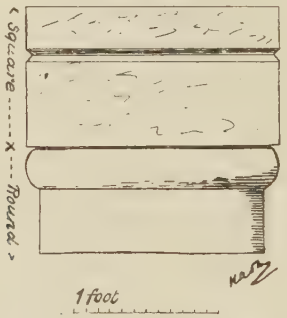
Stamp on Jar-handle.

and Tell ej-Judeideh. Its top is 1,223 feet above the sea level. The chief ruins belong to an irregularly-shaped building on the summit of the hill, having a maximum length north and south of 75 paces, and a maximum breadth of 50 paces. The top was not levelled for the building, as it follows the natural slopes. It is divided into chambers; the walls average 4 feet in thickness, are built in mortar, and the masonry consists of medium-sized stones, about square. Several smaller buildings of similar construction are found on the slopes. The pottery is all Roman or Byzantine (including a roof-tile), and Arab. Two late capitals and two column bases are found among the ruins. Cisterns and oil presses appear. A note in the "Memoirs" states that the ruins appear to be Byzantine, but suggests that

the site may be more ancient. As rock is found at the surface immediately outside the building, and as it appears in a cistern within the building at a depth of only 3 feet, it seems to me that the site was unoccupied before Roman or Byzantine times. Though included in our permit it does not appear to me to be worth excavating.

Khurbet Nuweitif.—This is written Nuweitih on the map and in the "Memoirs," but two persons, one the chief Sheikh of Beit Nettif, pronounce it Nuweitif. It is situated on a hill about a half mile to the north-east of 'Okbur. Here are found heaps of stones, an oil press, and cisterns, but the depth of soil is very slight, rock cropping to the surface everywhere: hence excavations would hardly pay, though the site is available.

Khurbet 'Askalûn.—These ruins crown a hill less than a mile south of Tell Zakariya. Except at the south, the sides of



Sketch of Capital at Kh. Askalûn.

the hill are very steep. The ruins consist of a large square building, measuring 75 paces north and south, by 60 paces east and west, with an extension 50 paces long to the south. Within the building may be seen the capitals and parts of the shafts of two columns, clearly *in situ*. Judging from the level of the rock exposed at a point within the building further south, I concluded that they must be about 10 feet high, and that they are founded on the rock. The *débris* here cannot be more than 7 feet, and is due to the destruction of the building, which thus appears to be the only building erected on this site. Within the enclosure is a natural cave which has been made

into a cistern. The sides are in places lined with small round rubble covered with plaster which is fixed in place by potsherds of Roman or Byzantine make. The broken rock-roof has been repaired with a vault. There are two openings, one circular and one oblong. The surface pottery is Roman or Byzantine. Stones have recently been taken from the ruin for building purposes. Excavation would probably reveal nothing ante-dating Roman times, but owing to a confusion of this site with Ascalon-on-the-sea it was not granted us.

Khurbet Shuweikeh.—This is outside the limits of our permit. The ruins are very disappointing; they cover an area 300 paces long by about 75 paces wide, crowning the summit of a ridge and extending somewhat down its sides. There are no signs of any large buildings, the remains appearing to indicate small houses. The masonry is of the rudest rubble. Several vaulted cisterns appear. I made a careful examination of the pottery, and among numerous Roman or Byzantine and Arab fragments recognised only two that might possibly be Jewish. As the soil is hardly more than 5 feet deep, and is due to the destruction of the houses now seen in ruins, excavations would probably reveal nothing more ancient. Further along the ridge to the west are the ruins of *Khurbet 'Abbâd*. Here we have several large enclosures with the rock cropping up inside and all around. Pottery all late. In the list of sites visited by him in Palestine and noted at the end of his "Tell el-Hesy," Dr. Petrie says in regard to Khurbet Shuweikeh, "all of late date." The name Shuweikeh appears to have preserved the ancient name Shocoh, and the identification with the Shocoh of 1 Sam. xvii, 1, has been generally accepted on the ground of position. That Shocoh had a certain importance is proved by the discovery of the handles of jars at Jerusalem, at Tell es-Sâfi, and at Tell Zakarîya dedicated to the king by this town. While a similarity of name and the general correspondence of position should be strong elements in identifying a given ruin with an ancient site, the nature of the ruin should be taken into account. Thus Petrie's examination of Khurbet 'Ajlân, where the *débris* is slight

and indicates a late period, has made it impossible any longer to hold to the identification of this site with Eglon. I confess that my examination of the ruins at Shuweikeh, where the slight depth of soil (and that evidently a late accumulation) is in striking contrast with the extensive Jewish remains at Tell es-Sâfi and at Tell Zakariya, has considerably shaken my faith in the identification with Shocoh. It should be remembered that Tell Zakariya has by no means been proved to be Azekah. Tell Zakariya rises from the Valley of Elah, is within three miles of Shuweikeh, and would suit the conditions for the position of Shocoh as given in 1 Sam. xvii, 1. The excavations have proved it to be an important site in Jewish times. Its ancient name has been lost; if this were Shocoh it may have been in later times transferred to the neighbouring site. This suggestion, however, is offered very tentatively.

Tell Yarmûk.—This Tell rises from the high land some three miles north-east of Tell Zakariya, and is not included in the permit. It measures about 500 paces around its base. It consists of a lower mound, which appears to have been surrounded by a wall, with a smaller mound superposed. The lower mound appears to rise some 25 feet above the surrounding country, but as rock is seen in a cistern only 4 feet below the surface near the base of the upper mound, the accumulation of the lower mound cannot be great: in other words, the town was built on a natural hill. The upper mound is about square with a side of 60 feet, and rises some 20 feet above the lower. It appears to be due to the destruction of a large stone building, divided into chambers with walls 4 feet 6 inches thick. The surface is almost entirely covered with fallen stones which would render excavation difficult. The pottery is almost entirely Roman or Arab: I found only two fragments which may be Jewish. Roman pottery is found in the plaster coating the sides of a vaulted cistern. To the west of the hill are several acres of ploughed ground, strewn with Roman pottery, showing that the settlement was extensive. This Tell has been identified with Jarmuth, but there are no signs that it was a Jewish site.

Tell Sandahannah.—This Tell is about one mile south of Beit Jibrîn, its summit being 1,098 feet above the sea. It has the regular Tell shape: fairly level top and sloping sides. It appears to have been surrounded by a wall. The top measures about 200 paces by 150 paces, and I estimated the accumulation at 30 feet. Roman pottery is scarce, the rest appears to be early Greek. I found no Jewish types, but these would probably appear in the lower strata. After completing the work at Tell ej-Judeideh, we shall probably make some excavations here, as the permit includes this site.

At Tell ej-Judeideh we seemed to be far more in the wilderness than we were at our other camping places. The tents were placed in a hollow of the hill not far from the summit, and the white spots of canvas, contrasting with the green scrub of the hillside, made a brave show from Beit Jibrîn. Our post station was Deir Abân, and it took our messenger almost three hours to reach the station. As the train from Jaffa does not arrive till about half past three, it was after dark before he could return to camp. One day he was sent to Jaffa for some money, riding the donkey as far as the station. He was to return the same day, but night came and no messenger. When the second night began to fall and the man did not appear, I prepared to ride out in search of him, but just as I was ready to mount, the glow of a cigarette appeared over the slope, and the faithful Friday (his literal name) rode into camp. It seems that he had been arrested in Jaffa on the charge of having recently committed a crime in Jerusalem, but fortunately he found a friend at court, who was able to establish an *alibi* for him. However, he missed the train, and was full of anxiety for the fate of the donkey left at Deir Abân. The animal had been kindly cared for by the stationmaster.

Though Beit Jibrîn is quite a town, we could buy nothing there but hens, eggs, barley, and *samn* (native butter). Most of our stores had to come from Jerusalem. Fortunately we found excellent bread at Beit Jemâl. The chief man at Beit Jibrîn belongs to the family of the 'Ûzzy, who hold sway over the whole district. He was an old friend of the Khaldi family, to

which our Commissioner belongs. His friendliness showed itself in invitations to dinner on two successive Sundays. Low tables groaned with platters of meat, rice, and vegetable stews, with some sweets, all of more or less indigestibility. We rejoiced in the etiquette which demanded that our servants and guards should squat at our table, and we were glad to have them take the lion's share in clearing the plates. These dinner parties are a diplomatic necessity, but the invitations are exceedingly indefinite as regards time. Last summer we rode over one Sunday to 'Ajjûr, to accept an invitation to an early lunch given by another member of the 'Ûzzy family in a beautiful orange grove. At noon a slight refection was brought in, of which we partook frugally, as the real luncheon was said to be imminent. When the "early lunch" finally appeared, after five o'clock, our appetites were certainly in a condition to do it justice.

During the heavy storms in December our camping ground became a field of mud, and we used the boards which had lined many a tunnel in underground Jerusalem to make a plank-walk between the tents. A capital stable was made for the horse and donkey by clearing out an old tomb-chamber, in which the Tell Zakarîya people also found refuge. Most of our workpeople came from that place, though a few belonged to Deir Nakhkhâs, a neighbouring village, to which the Tell belongs. The people tried a game of bluff in sending up a crowd of men to begin ploughing on the Tell long before it was necessary. However, they desisted after a few hours, and gave us no further trouble. The slopes of the Tell contain ancient graves, some of which have been rifled for treasure. The surface indications are very slight. Though our main efforts were directed to determining the line of the fortifications, we made a few attempts to find an unrifled grave. On the principle of setting a thief to catch a thief, we employed a man who evidently had been at the business before, though this he would not explicitly acknowledge. Several clues seemed to be promising, but unfortunately our search was unsuccessful. I hope we may have better luck later on. We hoped to store the camp at Beit Jemâl, but, owing to an increase in the school,

the Superior was not able to accommodate us, though he expressed genuine regret. However, our goods found safe shelter in the house of a friendly peasant at Zakarîya.

BEYROUT, *February 2nd*, 1900.

THE LOST INSCRIPTION OF EUGENOS IN THE WADY ER-RABABI.

By R. A. STEWART MACALISTER, Esq., M.A.

I HAVE been engaged during the last fortnight in making a study of the rock-tombs in the valley known in familiar conversation as the Valley of Hinnom. It is impossible for me to get my notes into order for publication, and to complete my plans, in time for the April *Quarterly Statement*; but one result of my examination of these monuments seems worth separate notice. This is what, if I am not mistaken, is the rediscovery of the inscription of Eugenos, copied by Schultz, and afterwards lost sight of. The epigraphists in Jerusalem had no idea that it still existed. It reads as follows :—

+ΜΝΗΜΑΑΜΑΦΕΡΟΝΤΑΤΟΥΕΥΓΗ
ΝΟCΟΚΟΜΙΟΥΤΟΥΠΑΤΡϚ
ΑΓΙΑC[CI
ΩΝ]

It is not incised but painted in red, and the colour, especially at the ends of the lines, has suffered much injury from weathering. A facsimile of this, as of the other inscriptions, will be presented in due course, but meanwhile I may say that the ΝΗ of ΜΝΗΜΑ is a monogram.

Tentatively I would propose the following verbation :—

Μνῆμα ἅμα φέρον τὰ τοῦ Εὔγενος [*sic*] ὁ Κομίου· τοῦ πάτρος.
Ἁγιας Σιών.

"Tomb bearing at once the [names] of Eugenos the son of Komios [and] of his father. Belonging to Holy Sion."

The formula is certainly not Μνῆμα διάφερον: the μ of ἅμα is quite distinct, and the α's, though broken, are traceable. I have not come across another instance of ἅμα φέρον. There is nothing corresponding to the article τά, and I am forced to conclude that ὀνόματα or some such word, has been either forgotten or obliterated. The Greek, of course, as assumed by this reading, is very barbarous, but not worse than that of other inscriptions in the same valley. Père Vincent, who examined the inscription with me and kindly collated my facsimile with the original, suggested that Νοσοκομίου in the second line might be meant for νοσοκομείου, "of the hospital": but he withdrew the suggestion, as it seems impossible to construe the first line without the use of the νος.

I may mention that I have found that the published copies of several other of the inscriptions require considerable revision, and that there are one or two other inscriptions in the valley which do not seem as yet to have got into print. Notices of these will follow later.

Postscript.—Since writing and forwarding the above note, I have revisited this and the other inscriptions in the Wady er-Rababi, in company with Pères Lagrange and Vincent and Mr. Hornstein of Jerusalem. Père Lagrange proposes the following amended reading of the inscription:—

ΜΝΗΜΗ ΑΜΑ ΦΕΡΟΝΤΑΤΟΥΕΥΓΗ
ΝΟCΟΚΟΜΙΟΥ ΤΟΥΠΑΤΡΙ
ΑΡΧΟC

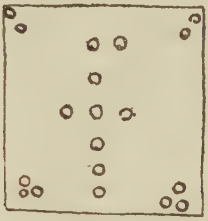
The concluding letters are barely traceable, but the remains are quite consistent with this reading. We may translate "of the hospital of the Patriarch," but it is difficult to know what to do with the end of the first line.

I may add that I have also refound the inscription of Thekla the abbess, reported as lost. The absurd reading, "*Benat* τοῦ Γεοργίου," is incorrect. From the three new inscriptions I fear little is to be expected; one is a mere fragment, the other two are scarcely legible.

A NOTE ON THE "HOLY STONE" IN THE DOME OF THE ROCK.

By R. A. Stewart Macalister, Esq., M.A.

The accompanying sketch is a diagram (not drawn to scale) representing the disposition of the small sockets in the so-called *Balâṭat ej-Jemâh*, inside the Dome of the Rock. Every visitor is shown this little square slab of stone, and is told the well-known story that the holes drilled in its surface are the sockets



of the nails driven in by Mohammed, one of which was to drop out at the end of each stage of the world's history: and how the end has been much accelerated by the devil, who destroyed all but $3\frac{1}{2}$ of the 19 nails driven by the prophet. He is further told that a *bakhshish* paid on this stone is a sure guarantee of Heaven—a modern and profitable pendant to the original story.

I have never seen any suggestion made as to what this stone may really be, apart from these and similar legends. That which I have to offer seems so obvious that I hardly dare imagine it is an original idea of my own, but it is not set forth in any book to which I have had access. The series of holes, in four of which brass pins still remain, remind me so strongly of the stones in mediæval churches to which memorial brass plates have been nailed, that I am inclined to regard this stone as another of the same class.

If this be correct, the monument would be one more relic of the period when the Dome of the Rock was the *Templum*

Domini of the Crusaders. It is easy to restore the probable design of the monument from the disposition of the pin-holes, with the aid of the analogy of similar monuments elsewhere. It would consist of a small plain cross, with a rectangular plate at the foot bearing the name of the person commemorated, and with separate corner-pieces, probably bearing symbolical representations of the Evangelists, or possibly small heraldic designs.

I am aware of two objections which might be urged against this suggestion. First, there are no *indents* in the stone for the insertion of the plate, as is always the case with Western brasses, which are invariably flush with the stone bearing them. Secondly, the Crusading domination (1099–1187) is a period earlier by 100 years than the date of the oldest monumental brass known now to remain. The second fact, as well as the remoteness of Jerusalem from all analogous monuments, might be put forward as an explanation of the first of these objections; while as for the second, there is no reason to suppose the art of engraving monumental brasses to have commenced with the date of the earliest extant specimen.

If the nature of this stone have already been discussed, and if this or any other theory have already been put forward, I should be much obliged for the reference.

THE VOCAL MUSIC OF THE FELLAHÎN.

By R. A. Stewart Macalister, M.A.

The popular vocal music of Palestine may be divided into two classes: the extemporaneous flourishes and the set traditional melodies. The extemporaneous flourishes are a kind of rhythmless recitative, set to words which are usually mere repetitions of such expressions as *ya lêle* or *ya sîdî*. They are almost invariably in the Dorian mode, and usually commence with a leap from the keynote to the fifth of the scale. Otherwise the

singer is perfectly free in his choice of intervals. Usually, the following characteristics are observed: the melody is divided by pauses into phrases of irregular length, and is further interrupted by frequent use of a glottal catch, similar to the *hamza* in the spoken language. The interval of the tritone (between the minor third and major sixth, characteristic of the Dorian mode) is frequently employed or suggested, and a peculiar tremolo is much affected. These details are displayed by Example 1, which was noted down from the singing of a much-applauded performer of this type of music. The commas indicate the positions of the catches above mentioned.

That this class of music is of later origin than the traditional melodies seems to be indicated by its extensive compass—often as much as a tenth—and by the frequent use of wide and sometimes unvocal skips. It is more often to be heard in the towns than in the country districts, and, indeed, the singer of the example here given was a Jerusalem boy.

The traditional melodies are more interesting. They are sung (*a*) as solos (*b*) in chorus, or (*c*) antiphonally. Solo singers usually protract the last note of the tune as long as their breath will hold out, at the end of every repetition or group of repetitions, and between each pair of repetitions leave a long pause of silence. This seems, so far as my observation goes, to be the orthodox method of singing songs of more elaborate character also: thus I have heard *Bafta Hindi* with a pause after each pair of lines quite as long as the time occupied in singing the whole couplet. When the song is sung in chorus these peculiarities are also to be noticed, except when, as often, the chorus accompanies rhythmical work. In the latter case the melody is repeated continuously without pause. When the tunes are sung antiphonally the second singer, or group of singers, fills up the pauses left by the first, and *vice versâ*.

In Examples 2 to 5 I give four examples of typical fellah melodies which exemplify the leading characteristics of the normal popular songs of the peasants. They are all short phrases, mostly in four bars: Example 5 consists of two bars only, twice repeated. The rhythm is always well marked, though occasionally irregular, as in Examples 6 and 8; usually

the time is quadruple, subdivided dactylically; Example 4 is one of the very few examples in triple time. The compass is singularly limited; in Example 2 being a minor third, in the remaining specimens a fourth. The song sung by the women at bridal processions (Example 6) is limited to a second in compass. In this song a singular effect is produced by suppressing the last half of bar four in the odd repetitions. The motion is almost always conjunct, that is, from each note to an adjacent note of the scale. The modes are considerably varied, Example 2 being in the common minor mode, 3 in the Phrygian, 4 in the Mixolydian, and 5 in the ordinary major mode. The accented note is rarely subdivided—the third crotchet of bar two, Example 5, is an instance. Notice the appearance of a perception of musical form in Example 3; it is divisible into two corresponding halves, as indicated by the slurs.

The scale is divided into degrees similar to those to which Western nations are accustomed. In first attempting to reduce these melodies to writing one is puzzled by the appearance of quarter tones, which of course cannot adequately be represented in the staff notation: but after carefully comparing the performances of different singers on different occasions, it becomes clear that these are merely the faults of the rendering, and are not inherent in the melody. In some notes of the tunes here given there is a greater tendency to error than in others. Thus, in Example 2, the minim A,[1] bar three, is very apt to flatten—sometimes it drops to a barely sharpened G, while the following G almost retains its proper pitch. On the other hand, the F, the last note but one in Example 3, is often sharpened. Example 4 is badly treated, and sometimes the distortion is carried even as far as 4*a*, which is almost a different melody altogether. This tune, it should be observed, is always sung continuously, that is, without pauses at the repetitions. It would naturally be taken to end on the F sharp (the following G, A being transferred to the commencement of the phrase) were it not that the singers finish off a series of

[1] That is, of course, A as here written. The absolute pitch naturally varies with the singer.

repetitions of the melody on the A. It is evident, however, that in the garbled form of the tune (Example 4*a*) the melody is unconsciously conceived as ending on the note here marked by a pause within brackets. I once heard 4*b*, which is Example 4 transposed to the Phrygian mode: I cannot but think that this was due to the bad ear of the singer.

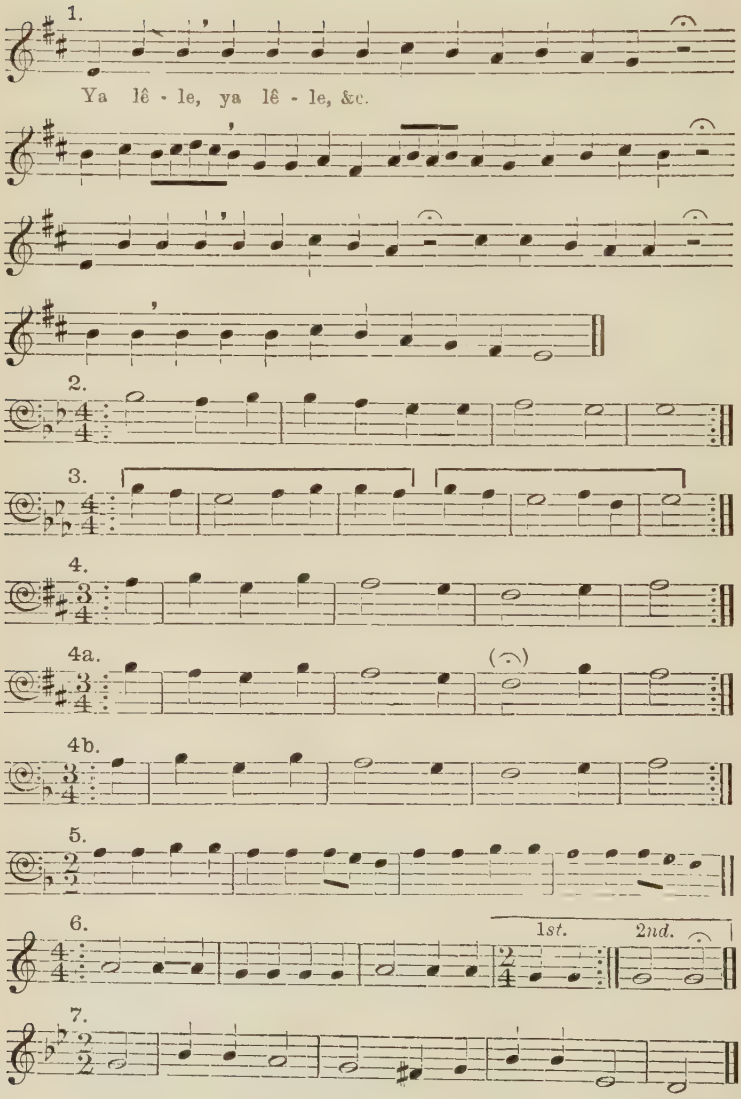
The really striking fragment of melody, Example 7, was sung once, and only once, by a gipsy boy employed on the excavations at Tell Zakariya for a short time. It must be regarded as quite abnormal, on account of the anapæstic subdivision of the bars, and the remarkable skip at the end.

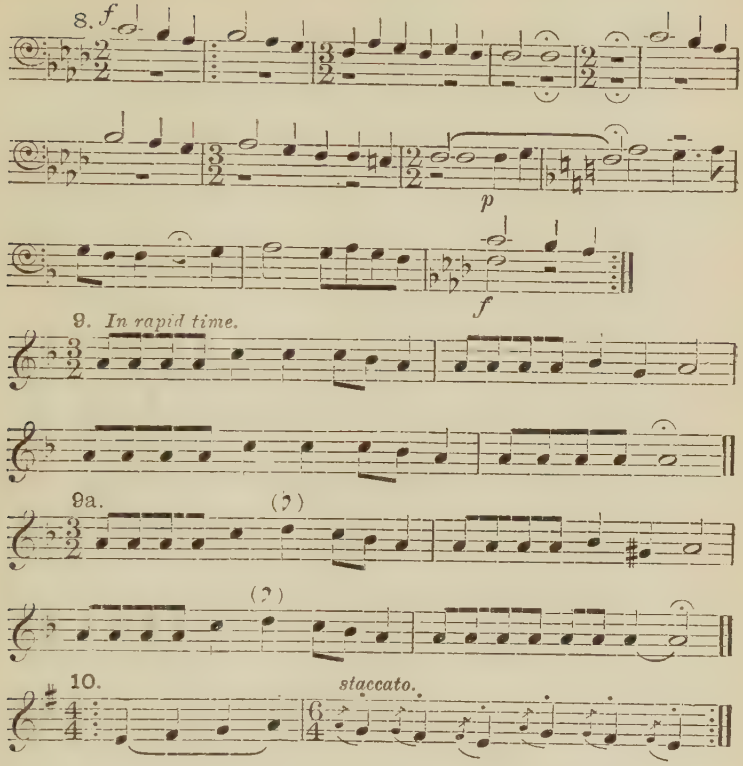
Example 8 is interesting as being the only specimen of concerted music I have heard among the Fellahîn. It is sung by two singers antiphonally. The tails of the first singer's notes are turned up, those of the second singer's down, in the example as printed. Notice in this interesting composition (1) the varied rhythm of the first singer's melody; (2) the change of mode from minor to major and back; (3) the change of *nuance*, the first singer's part being loud, the second soft: (4) the extended compass (a minor sixth); (5) the elaborate subdivision of notes in the second singer's part; and (6) the overlapping of parts, thus temporarily producing *harmony* at the moment when the tune passes from one singer to another.

Example 9 is also *sui generis*. It is a great favourite with the children about Tell es-Sâfi, who succeed in imparting to the music a peculiar wailing quality, which is quite indescribable. Notice the triple time and its curious subdivision. The last note is always prolonged. Example 9 is apparently the normal form, 9*a* is one of several variants, none of which, however, affect the characteristic rapid notes at the beginning of each bar.

Except once, when I noticed a feeble attempt at Example 2, I have never heard any of these tunes reproduced on the reed pipe, which is the melodic instrument of the Fellahîn. The music of this instrument forms a class by itself, but it is of too indefinite a nature to make it at all an easy matter to formulate its characteristics. Example 10 is perhaps the least amorphous melody I have heard played upon it.

Examples.



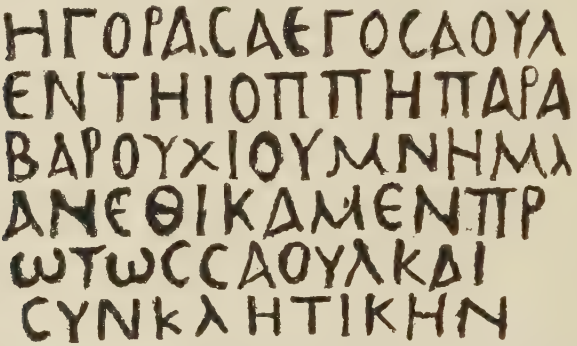

8.
f
p
f
9. In rapid time.
9a.
(?)
(?)
10.
staccato.

NOTES ON SQUEEZES OF INSCRIPTIONS IN BARON USTINOW'S COLLECTION, SENT BY THE REV. J. E. HANAUER.

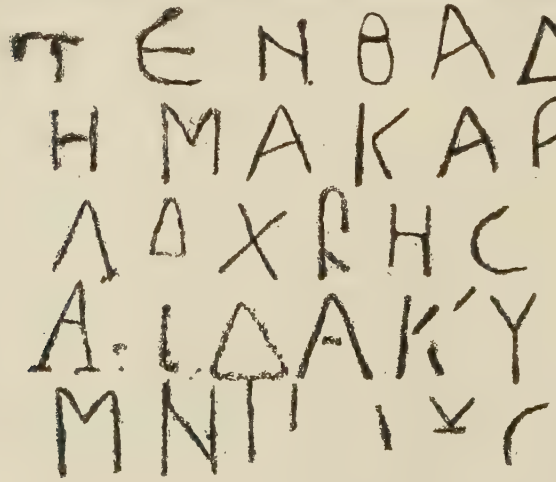
By Professor Clermont-Ganneau, LL.D.

The following Inscriptions No. 1 to No. 9 have been already published.[1]

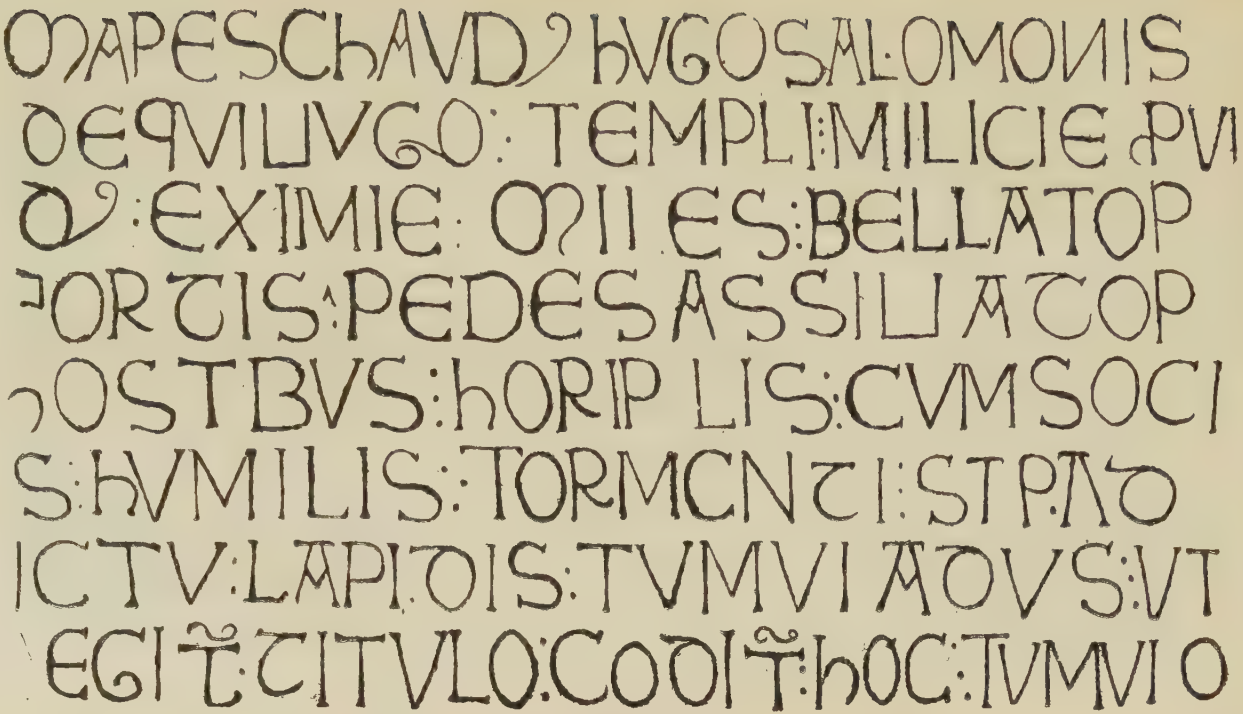
1. See Clermont-Ganneau, *Revue de l'Orient Latin*, Vol. II, p. 462, No. 7, Pl. III A. (*See* opposite.)
2. Clermont-Ganneau, *Archæological Researches*, II, p. 152.
3. Clermont-Ganneau, *Recueil d'Arch. Orient.*, Vol. I, p. 99 ff.



4. Clermont-Ganneau, *Archæological Researches*, II, p. 141.
5. *Revue Biblique*, 1894, p. 250 (indicated as coming from *Ascalon*).

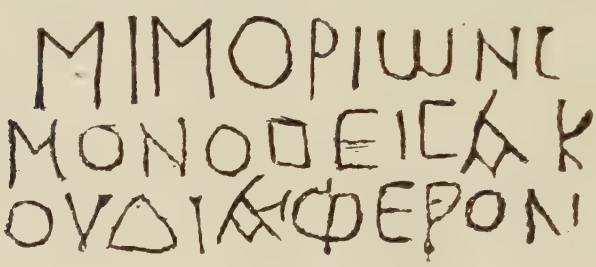


[1] The inscriptions published by the Fund in M. Clermont-Ganneau's *Archæological Researches* are not reproduced here.

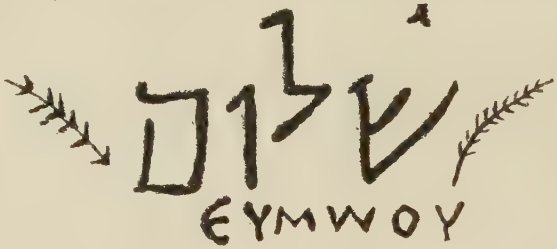


Epitaph of Hugh de Quiliugo. From Ascalon (*see* p. 121)

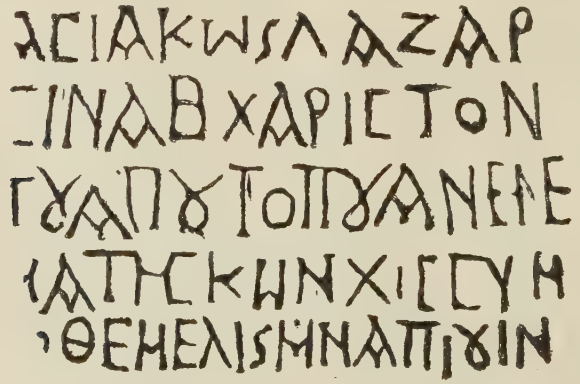
6. Euting, *Epigraphische Miscell.*, I, p. 16, No. 74.



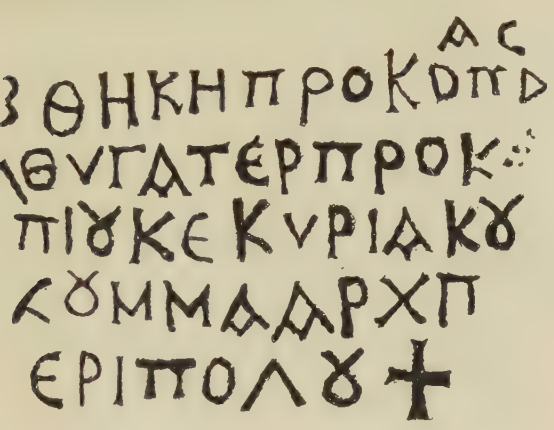
7. Euting, *Epigraphische Miscell.*, I, p. 13, No. 52 (a squeeze taken by me in 1881).



8. *Revue Biblique*, 1892, p. 248 (indicated as coming from the district between Jaffa and Gaza). I believe that the stone comes from Jaffa itself.

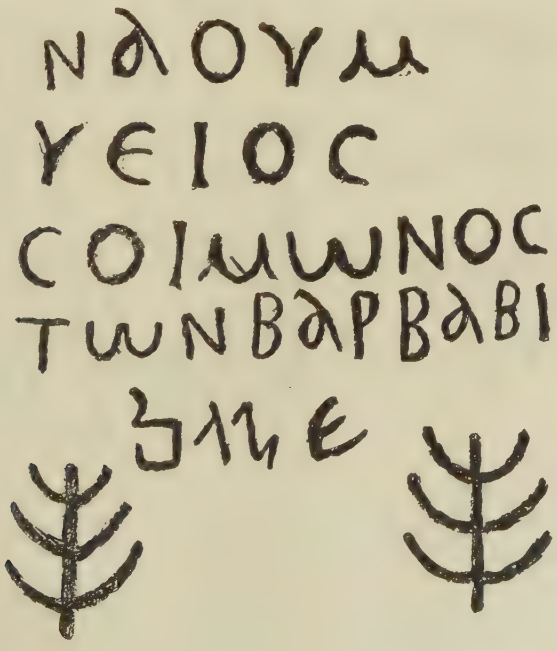


9. *Revue Biblique*, 1892, p. 246.



GREEK, WITH SOME HEBREW WORDS.

10. COIMONOC is certainly for CIMONOC (by iotacism). BAPBABI recalls the title Berabi, Beiribi?? Compare a Jewish



inscription from Jaffa, published by me in the *Proceedings of the Society of Biblical Archæology*, March, 1884, p. 124, and the Greek transcription of this title Βηρεβι in Euting, *op. cit.*, p. 13, No. 54.

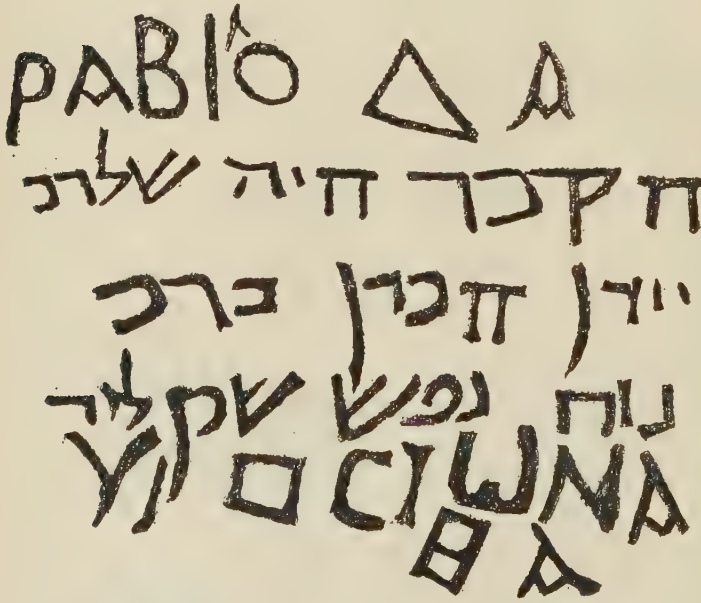
11. A squeeze taken by me in 1881 :—

הקבר הזה של רב יודן ה ... ברב נוח נפש .....
?? ?

"This tomb is that of the Rabb Youdan, the . . . beirebi ?? rest his soul !" (the last Hebrew characters are perhaps the initials of words forming an abridged blessing or eulogy).

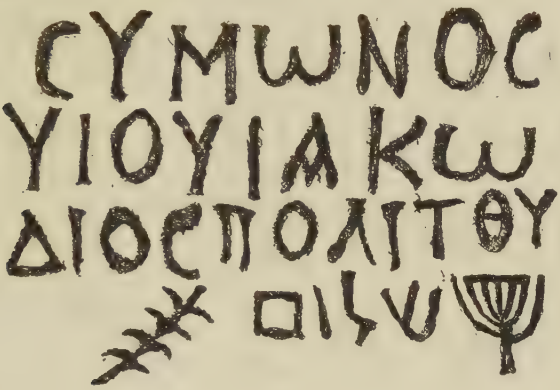
ΡΑΒ ΙΟΥΔΑ ΥΙΟC ΙΩΝΑΘΑ

"The Rabb Iouda son of Ionatha."

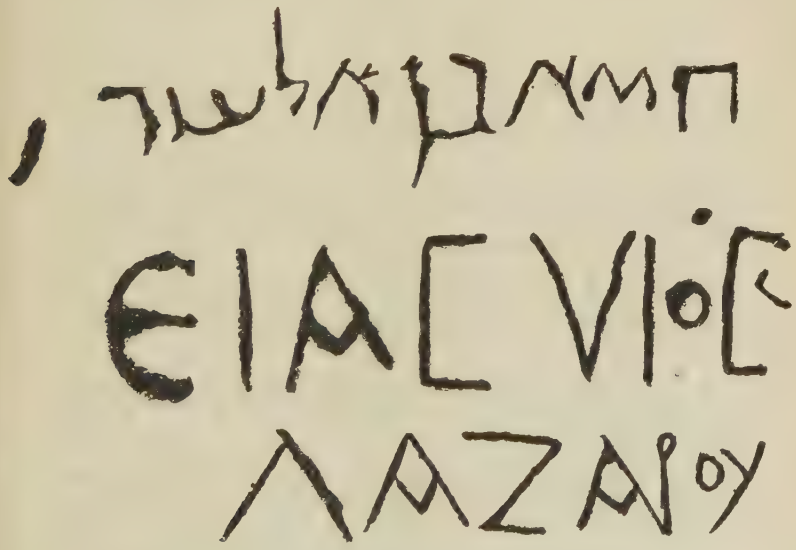


12. For the form ΙΑΚΩ=ΙΑΚΩΒ, cf. my *Archæolog. Researches*, Vol. II, p. 395; it is found again spelt ΕΙΑΚΩ, on another Jaffa inscription (*Statement*, 1893, p. 300). I believe that the Diospolis of which the deceased was a native is Diospolis in Egypt, not in Palestine, most of the Jews buried in the necropolis at Jaffa being of foreign

extraction (who perhaps died after disembarking, during the course of a pilgrimage).

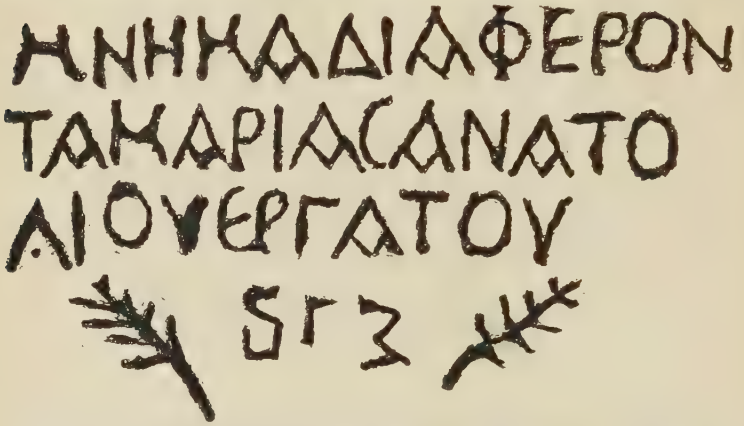


13. חויא בן אלעזר "Hiya, son of Eleazar"; name Hiya (*Life* = living) is borne by a number of Rabbis in the Talmud; it is very accurately transcribed by the Greek ΕΙΑC, the rule being to suppress the Semitic guttural; the Greek should be pronounced **Ιας**, by iotacism ($\epsilon\iota = \iota$).



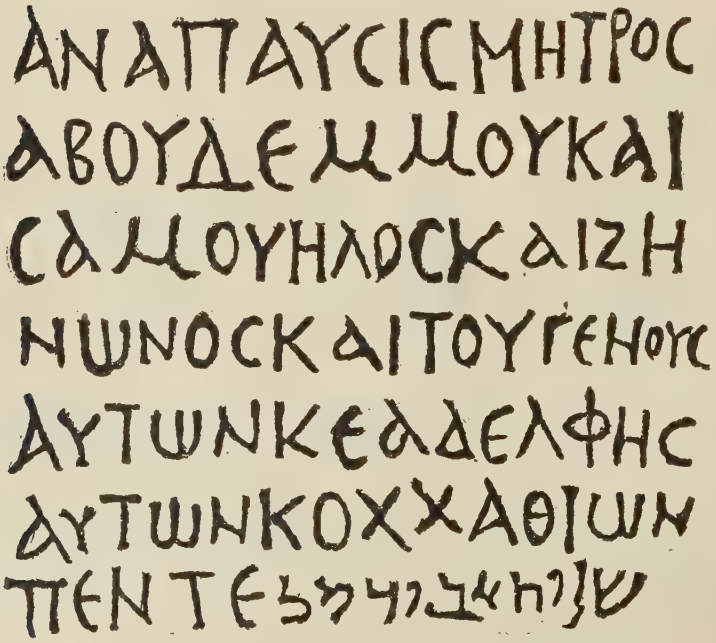
14. Perhaps we should read *διαφέροντα* (specially belonging), a solecism for *διαφέρον*; the proper name would then be *Μαρία*, a woman's name

Ἀνατόλιος is not a geographical adjective (of Anatolia), but rather the father's name, *Anatolios*, שלום], with omission of *Shin*.



15. Line 5, not "their brethren," but "their sister" (ΑΔΕΛΦΗC ΑΥΤΩΝ). The first proper name seems to be Αβουδεμμου (genitive), rather than "Eboud son of Emmos"; it is perhaps found transcribed in Hebrew in the last line:

?? ?
שלום אבודמס
Aboudemmos! peace!

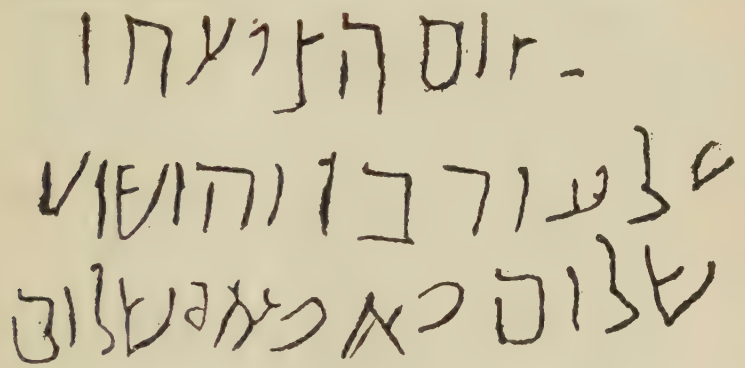


Lines 6, 7. Perhaps ΚΟΧΧΑΘ is to be regarded as the sister's proper name, and ΙΩΝ (= *υἱῶν*) ΠΕΝΤΕ to be taken as = "her five children," ΙΩΝ = ΥΙΩΝ by iotacism; *υἱοὶ* is frequently used as a general term for "children," male or female. These were the five children of the deceased?

16.

. . . . . הציון הז(ה)
שלעזר בן יהושוע
שלום באבעזר שלום

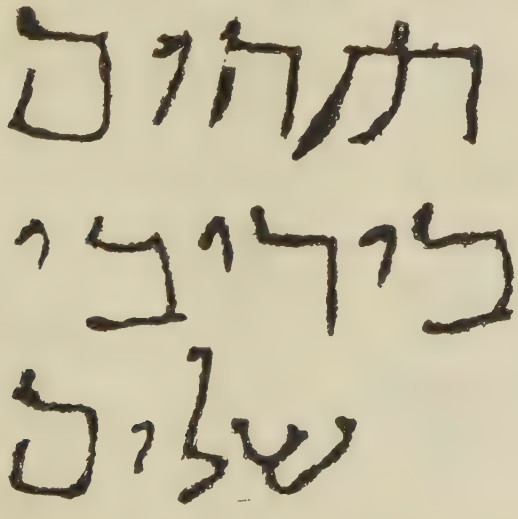
". . . . This gravestone(?) is that of 'Azzour (? or Eleazar?) son of Yehoshoua. Peace! . . . . "



17.

תנחום ביריבי שלום

"Tanhoum (?), the *beribi* (doctor). Peace!"



GREEK.

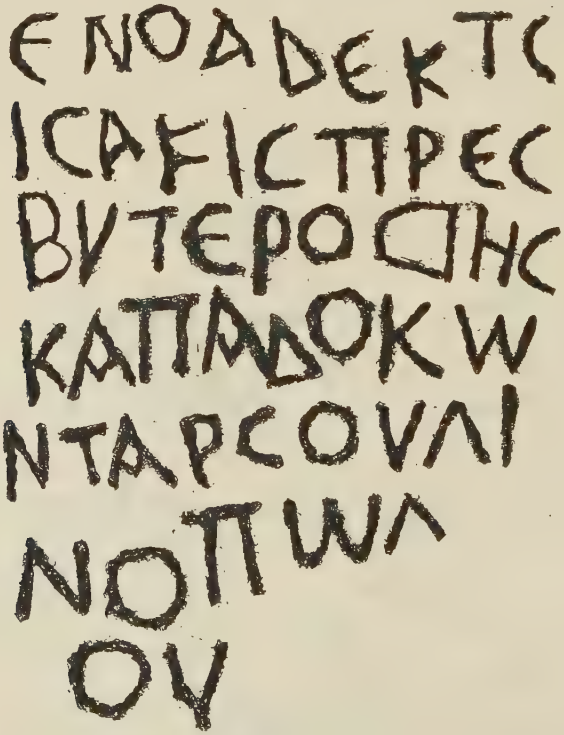
18. ΕΝΘΑΔΕ {Κ(Ι = εἰ)ΤΕ(= αι) = κεῖται} {ΙCΑΚΙC (= Ισακιος) = Isaac}

ΠΡΕCΒΥΤΕΡΟC ΤΗC ΚΑΠ(Π)ΑΔΟΚΩΝ

ΤΑΡCΟΥ ΛΙΝΟΠΩΛΟΥ

"Here lies Isakios, the elder of Tarsus in Cappadocia, linen merchant."

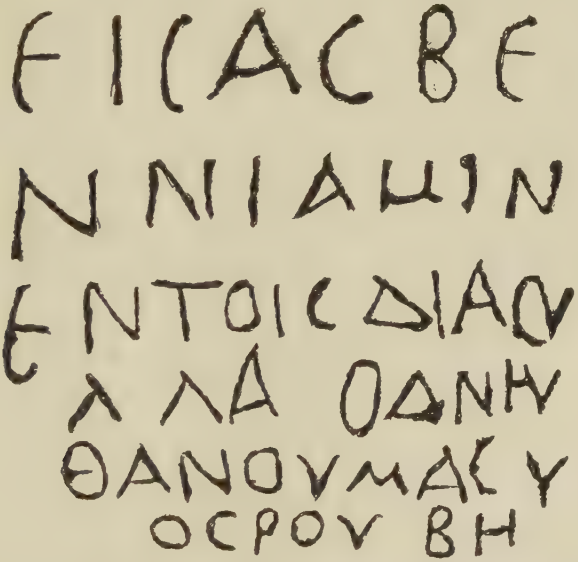
Tarsus is properly in Cilicia, not in Cappadocia; it is true that the two provinces adjoin each other, and that sometimes even Cappadocia seems to include Cilicia or a district of that name. Perhaps, also, there was in Cappadocia itself, as in Bithynia, a city of Tarsus of the same name as the celebrated capital of Cilicia. Another Jaffa inscription (*Statement*, 1893, p. 290) has already furnished the name of a Cappadocian Jew.



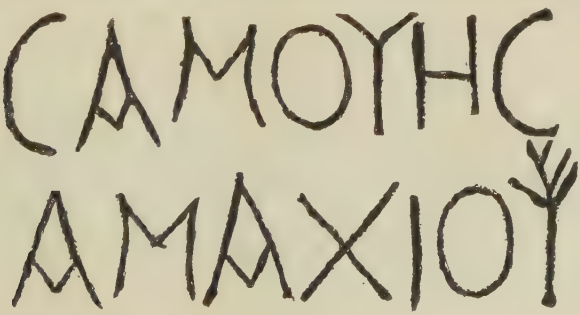
19.

ЄICAC BENNIAMIN EN TOIC ΔIA CYΛΛA
? ? ?
OANIY (Ιωαννου??) ΘANOYMAC Y(I)OC
POYBH(ν)

"Eisas, son of Benjamin, in the (δια[φέρουσι]??) of Syllas (?).... Thanoum(as), son of Reuben." For the name *Eisas*, *Isas*, which has already been met with in the Jewish necropolis at Joppa, see my remarks in my *Archæological Researches*, II, pp. 134 and 490, and *ib.*, p. 143, for *Roubè* = *Rouben*.

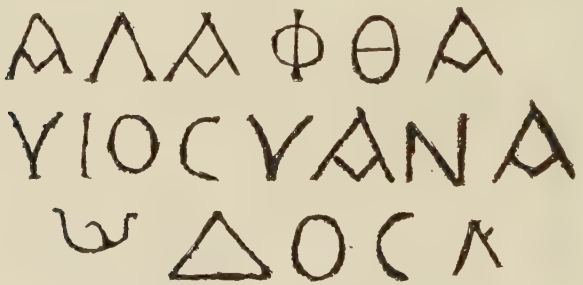


20. It is perhaps better to read CAMOYH CAMAXIOY, "Samue(l), son of Samachias." סמכיהו *Semakyah(ou)* is a Biblical



name transcribed in the Septuagint by Σαμαχίας. Σαμουη would then be an apocopated form of Σαμουηλ (the full form has already been found at Jaffa: see Euting, *op. cit.*, p. 13, No. 54), as Ρουβη for Ρουβην, Ιωση for Ιωσηφ, etc.

21. ΑΛΑΦΘΑ is the very exact transcription of a name common in the Jewish onomastics, and which was borne by several celebrated rabbis, חלפתא. It is also found in Palmyra inscriptions (see my *Études d'Arch. Orient.*, Vol. I, pp. 109 and 110). I do not know the origin of the patronymic Υαναδος; is it a name related to the Jewish names Ιανναι, Ιανναιος, Ιαννεας, etc.? should the syllable δος be detached from it, or must it be allowed that the name is here classed in the third declension? א and ש are perhaps the initial letters of the words אמן (amen) and שלום (peace), which are found in the trilingual epitaph of Tortosa (*Revue Archéol.*, 1860, p. 345).



Note by the Rev. J. E. Hanauer.

Permit me to call attention to two of the squeezes from the old Jewish cemetery here, which I sent you some time ago, in illustration of my notes on Tell er Reesh, published in the *Quarterly Statement* of October, 1898. I now enclose pencil copies, as the two epitaphs seem to be (indirectly) of some historical value, and have awakened great interest in the minds of those to whom I have had the honour of pointing them out. The Bishop of Salisbury has several times inspected Baron von Ustinow's collection, where the stones are kept, and taken photographs and copies. Also Professor Hechler, of Vienna, has taken squeezes. I am not aware that these inscriptions have ever been published.

I. The first inscription (*see* p. 119, No. 19) is the epitaph of ЄICAC BЄNNIAMIN, who is described in connection with "Sulla." The Sulla in question was not the famous Roman dictator, who died B.C. 78, but Faustus Cornelius Sulla, his son by his fourth wife, Cæcilia Metella. Faustus Sulla accompanied Pompey into Asia, and was the first to scale

the temple wall at Jerusalem, B.C. 63. In "Antiq." XIV, 4, § 4, and 'Wars" I, 7, § 4, 6, and 7, Josephus gives us an account of his having been specially rewarded for this. A few lines further down in the same chapters the Jewish historian speaks of Pompey's taking the coast towns, *including Joppa*, from the Jews and restoring them to their former Gentile occupants. We may well suppose that Faustus Sulla took his part in these military operations and that the inscription (whatever date may be assigned to it on epigraphical grounds) contains an allusion to Jews slain at the time.

II. The second inscription (p. 113, No. 10) is the epitaph of **NAOYM**, or Nahum, son of **COIMωNOC**, "of the Bar Babi," evidently a well-known family. On seeing it the Rev. Professor Headlam reminded me of the story told by Josephus ("Antiq." XV, 7, § 10), concerning Herod the Great's relentless persecution of the sons of Babas, and their tragic fate.

III. Amongst the other squeezes I sent was one from a Templar's tomb-stone found at Ascalon (*see* p. 111). The Bishop of Salisbury was very much interested in this, and has published it with a translation in the "Salisbury Diocesan Gazette" for February, 1899.[1] He says:—"I deciphered the following epitaph of Hugh de Quiliugo, Marshal of the Knights Templars. The 'Marshal' was an important officer, and stood, I believe, fourth on the list of the leaders of the Order, the 'Grand Master,' 'Grand Prior,' and 'Seneschal' being above him. The Marshal was in fact the General in war.

"The epitaph runs as follows, in elegiac verse:—

Mareschaudus Hugo Salomonis de Quiliugo,
Templi milicie providus eximie,
Miles bellator fortis, pedes assiliator
Hostibus horribilis, cum sociis humilis,
Tormento stratus ictu lapidis tumulatus,
Vilescit titulo conditus hoc tumulo:

which I render as literally as I can, but without the rhyme of the original:—

The prudent Marshal of the famous knights
Who guard thine ancient Temple Solomon,
Hugh named de Quiliugo, warrior brave
On horseback, and on foot assailant fierce,
Fearful to foes, but gentle to his peers,
Struck by an engine's fatal bolt of stone,
Loses his glory here and finds his grave.

"There is a certain chivalrous frankness about the epitaph, but not a bit of Christianity. Quiliugo is said to be in Brittany. Is it, perhaps,

[1] It has also been published by M. Clermont-Ganneau in the "Archives de l'Orient Latin," tome ii, p. 462, No. 7, plate 3A.

St. Jacut, a little to the west of Redon, on the road to Vannes? I should be glad to know more about this brave old knight."

Notes by the Bishop of Salisbury.

I have no doubt that the following is the right reading and translation of the inscription No. 18, of which I made a copy :—

ЄNΘΑΔЄ ΚΤЄ	ἐνθαδε κτε (=κεῖται)
ΙCΑΚΙC ΠΡЄC	Ισάκι(ο)ς πρεσ-
ΒΥΤЄΡΟC ΤΗC	βύτερος τῆς
ΚΑΠΑΔΟΚΩ	Καπ(π)αδόκων
Ν ΤΑΡCΟΥ ΛΙ	Τάρσου
ΝΟΠΩΛ	λινοπώλον(=ων)
ΟΝ	

"Here lies Isaac, elder of the synagogue (*or* guild) of Cappadocian linen-merchants of Tarsus."

I have mentioned before the epitaph of Philip D'Aubigny on a stone forming part of the pavement of the courtyard of the Church of the Holy Sepulchre. It is just before its main entrance, but a little to the right of it, if I remember correctly. I copied it again, rubbed it not very successfully, and photographed it rather dimly. It is, I believe, the only epitaph of a crusader still in the precincts of the Holy Sepulchre, and it was, I believe, saved by being till lately covered with rubbish. To us it is specially interesting, as it seems to belong in part to Wiltshire through his possession of the Castle at Devizes. I may remark that I saw his name not so long ago (as I was waiting in the Town Hall parlour) as witness to a charter exhibited there. He was left by King John guardian to his son Henry III, but died at Jerusalem during the short time that the city was (peaceably) in the hands of the Emperor Frederick II A.D. 1228–1238. The name is written "De Aubingni." There is an emblem of some sort (possibly a cross) half obliterated before the "Hic iacet." (*See* "Salisbury Diocesan Gazette," July, 1898, p. 144.)

Remarks by Professor Clermont-Ganneau on Mr. Hanauer's Note.

I herewith return Mr. Hanauer's letter and note, which you were good enough to communicate to me. No. 10 appears to me to have been read rightly by him, except that the name of the father is really *Simon*. It is the well-known Jewish name, here written **Σοίμωνος** (genitive) instead of **Σίμωνος**, the result of the so frequent iotacism, **οι** = I. In No. 19, line 5, we must read **Θανούμ** = *Thanoum*, a transcription of the very common Jewish name *Tanhum* (with the regular suppression of the Hebrew guttural *h*, as in **Ναούμ** = *Nahum*, in inscription No. 10). All these names, **Ειισας** (= **Ισας**), **Βεν(ν)ιαμιν**, **Ρουβη**, **Θανουμ**, **Σίμων** have been already met with in the epitaphs from Joppa, published in my "Archæol. Res.," vol. ii, pp. 133, 137, 143. Mr. Hanauer seems to me to have been misled by the apparent connection of **Θανουμ** with **Θανεῖν**, which has led him to a distinctly improbable historical deduction. If **Συλλα** is here a proper name, there is nothing to prove that the famous Roman of that name is concerned, the name is sufficiently common in the Semitic and Jewish onomastics. To give an opinion upon the real reading of lines 3 and 4 of inscription I, it would be necessary to have the squeezes before one.

A CUNEIFORM TABLET, SARCOPHAGUS, AND CIPPUS WITH INSCRIPTION, IN THE MUSEUM AT BEIRÛT.

By Professor H. Porter, Syrian Protestant College, Beirût.

I enclose a photograph of a small cuneiform tablet from the College Museum of Archæology. It came to me from Mount Lebanon, but I know nothing of where it was found or the history of it. It may perchance be worth publishing. The tablet is inscribed on one side only.

Also I send the photograph of a marble sarcophagus recently discovered here and now in the Museum of the College. Its length is 2·23 metres, and width 0·92 metre. The height to the summit of the gable is 1·11 metres, the cover itself being 0·40 metre. It is probably Roman, as Beirût was a Roman colony and has various remains of colonial times. There is no inscription on the sarcophagus, but there was found in the same excavation a cippus of limestone (of which I enclose photograph also), height 1·07 metres, and breadth of base 0·46 metre. The

face of one side has a Latin inscription, of which I enclose a copy:—

I * O * M * H
CONSERVATORI
L * MVCIMEIVS
FORTVNATVS
DECMINVS
V * L * A * IN

J(ovi) O(ptimo) M(aximo) H(eliopolitano). Conservatori. L(ucius) Mucimeius(anus?). Fortunatus. Dec(imanus)? V(otum) L(ibens) A(nimo) N(uncupat).

In the third line the letters seem to be as I have traced them, but Mucimeius is a strange form, and I have ventured to read Mucianus, a well-known name. In the fifth line the letters as traced mean nothing, and I think must have been a mistake of the artist for Deciminus, and I have thus transcribed it. The letters in the last line are fairly plain except the last which is hopelessly defaced. One would expect an S, but what traces there are forbid such a restoration, and so I have supposed the single upright stroke to be the remains of an N and read Nuncupat, though I have never come across it in an inscription before. Thus amended the inscription would read: "Lucius Mucianus the fortunate tithe gatherer gladly makes a vow, to Jupiter Optimus Maximus of Heliopolis."

Decimanus might mean soldier of the tenth cohort, thus connecting this person with one of the legions which we know were stationed at Beirût in colonial times. The worship of the Heliopolitan Jupiter was widespread, as may be inferred from an inscription on a marble tablet dedicated to him at Puteoli (*see* "Am. Jour. Archæology," vol. ii, 1898, p. 374).

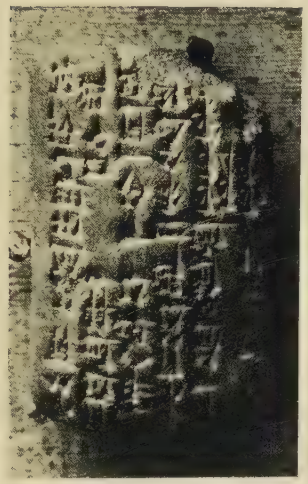
NOTES ON THE HISTORY OF MODERN COLONISATION IN PALESTINE.

By the Rev. J. E. Hanauer.

The story of the colonisation of Southern Palestine during the last half century is a tale to be told with "weeping and with laughter," as it contains many details, interesting, romantic,

[To face Page 124

Inscribed Cippus found near to Sarcophagus.



Cuneiform Tablet from the College Museum, Beirût.

Sarcophagus recently discovered at Beirût.

humorous, and even tragic. In the following notes we can only briefly glance at a few of the principal of these.

As elsewhere, so also in Palestine, missionary agencies did much pioneer work that made it possible for secular colonists coming later to develop more fully the natural resources of the country.

Before the occupation of Syria by Muhammad Ali in 1832 the Franciscan, Minorite, or Cordelier Monks had, together with the Carmelites, formed the only communities of Europeans living in Palestine proper. Their special vocation was to show hospitality to European and other pilgrims visiting the Holy places, and they underwent a great deal of persecution, oppression, and even martyrdom. For details of these experiences I would refer readers to the exhaustive works of Dr. Titus Tobler and others.

"The Land and the Book" gives an account of the eccentric Lady Hester Stanhope's long residence in Palestine.[1] She died in June, 1839. I have not been able to learn that any lasting good was done by her, and am told that her very name is forgotten in the locality where she lived and died.

The bombardment of Acre, in the autumn of 1840, by the combined fleets of England, Austria, and Turkey, and the expulsion of the Egyptians from Palestine, ushered in a new order of things. Under the shadow of the Protestant bishopric supported by England and Prussia—the Latin Patriarchate was not re-established till some eight years later—various new institutions came into existence, and trade and traffic began to revive, in order to supply primarily the needs of those institutions. Thus the trade in the manufacture of olive-wood ware, by which so many living in the Holy City now earn their livelihood, was first started for the employment and maintenance of converts, and by an English missionary institution, the London Jews' Society's House of Industry. Again, when the building of the first English church was to be commenced, it was found necessary to fetch stone-cutters from Malta and carpenters from England, there being no competent artisans in Palestine. The church and other Mission buildings took several years to erect; the former was not ready for consecration till 1849. But in the meantime, native stone-cutters from Bethlehem, &c., had been taught and trained by the Mission's European workmen, so that when, ten years later and

[1] Edition of 1873, Chapter VII.

after the Crimean war, the great modern building era commenced, and French, Austrians, Germans, and Russians began to erect churches, hospitals, hospices, and schools, skilful native workmen in great numbers were at hand to do what was needed under the oversight of European architects.

Although we propose in the following notes to deal with agricultural and not with religious enterprises, we shall find that in their incipient stages the former were almost without exception connected with the latter.

Let us recount events in regular chronological order, beginning with the story of "the Brüderhaus."

Spittler, of Basel, the founder of the College at St. Chrischona, conceived a romantic scheme. It was to establish, radiating from Jerusalem as their great centre, lines of mission stations to all parts of Asia and Africa, &c. The first of these lines, forming what was called the "Apostelstrasse," was to consist of 12 such stations, named respectively after the Twelve Apostles, and leading up, along the Nile Valley, into Abyssinia and Central Africa. Accordingly, in 1846–1848, he sent out to Jerusalem four missionary brethren, mechanics. "The general idea was that living together unmarried, and teaching native youths mechanical arts and trades in connection with religious instruction, they might gain the confidence of the people and exert an influence as Christians, both by precept and example. Their hopes, however, were not fulfilled, and they eventually left and went into other employments where they might"—and as the result showed did—"labour more effectively and without the restraint of celibacy."[1] The names of all four have become household words in Palestine.

Mr., now Dr., Schick, the only survivor, is known the world over to readers of the *Quarterly Statement* as a veteran explorer and the greatest living authority on underground Jerusalem. He became, and is still, an agent of the London Jews' Society.

Mr. Palmer's name is dear to hundreds of young Syrians as that of a kind and faithful teacher in the service of Bishop Gobat, and, later on, of the Church Missionary Society.

The Rev. S. Müller founded the German Mission Stations at Bethlehem, and he also, as the natives unreservedly acknowledge, did a great deal to induce the Bethlehemites to reclaim their

[1] Robinson's "Later Biblical Researches," p. 165.

desolate hillsides and plant olive yards and vineyards. His nephew still carries on the work.

On leaving the Brüderhaus Mr. Baldensperger, its fourth inmate, entered into partnership with Mr. Meshullam, a Hebrew-Christian, who kept a hotel at Jerusalem, but owned gardens at Urtâs. His family resided at Bethlehem during the summer, till, in 1850, they removed to Urtâs altogether. On October 7th, 1849, Mr. Baldensperger, undaunted by the unsettled state of the country, pitched his tent in the beautiful valley and lived there alone with his faithful dog. The fellah village, which had been destroyed in 1831 by Ibrahim Pasha,[1] was then still in ruins, and the villagers, fearing Bedouin raids, lived in the old caravanserai castle (Kula'at el Burak), close to Solomon's Pools. (I think that it is here that "the habitation of Chimham," Jeremiah xli, 17, was situated.)

Mr. Jean, one of Mr. Baldensperger's sons, has kindly furnished me with various notes from his father's private journals, and from these I learn that up to October, 1850, the villagers of Urtâs were exempt from paying taxes, "because, ever since the time of Solomon" (*i.e.*, Sŭleiman the Magnificent), as the Sheikh informed Mr. B——, "it devolved upon them to keep the aqueduct in repair as far as Bethlehem."

"In February, 1850, a company of German colonists settled in Urtâs. A glowing report of this colony is given by Ritter, 'Erdkunde,' vol. xvi, p. 282. They, however, soon became dissatisfied and dispersed" (Robinson, "Later. Bibl. Res.," p. 274). Though Mr. Baldensperger also severed his connection with Mr. Meshullam in 1851 to enter Bishop Gobat's Mission, yet he still retained possession of gardens at Urtâs, and his family have a house and gardens there now. One of his sons, Mr. Philip Baldensperger, is well known to the readers of the *Quarterly Statement* for his valuable papers on social conditions, folk-lore, &c., in Palestine, and, as colonists, he and his brothers have done a great deal for the country by introducing improved and scientific methods of bee-keeping. The large apiary at the Jewish agricultural colony in Wâdy Hanein (*see* further on) was formed under their direction and instruction.

The Brüderhaus, in the meanwhile, received new inmates, and eventually developed, after the Lebanon massacres in 1860,

[1] Frère Liévin's "Guide Indicateur," 1869, footnote, p. 323.

into the well-known agricultural and trades' school known as Mr. Schneller's Syrian Orphanage,[1] which in 1889 started an agricultural branch colony at Bir Salim, south-west of Ramleh, holding 585 hectares of land on a 40 years' lease. (Eleven Turkish donnim equal one French hectare, equal 10,000 square metres, or 2·471 acres—259 hectares = one square mile.)

In the meantime a remarkable movement, destined to have some influence on the colonisation of Palestine, was going on in another part of the world (*see* "A Fanatic and Her Mission" in "The Churchman" of New York for October 10th, 17th, 24th, and 31st, 1896). I shall tell the tale briefly :—

There was a great stir caused in the United States about 50 years ago (1842–1845) by the preaching of a certain Father Miller, who warned people that time would end in 1843 A.D. By the close of 1842 he had nearly 50,000 followers, most of whom had been respectable Baptists and Methodists, who proved their belief in his teaching by ceasing to make any provision whatever for their further existence on a planet doomed to destruction within a few months at the most. They took their children from school, left their fields untilled and their crops ungarnered, whilst many sold their property and gave the money "to pluck brands from the burning." Foremost amongst these enthusiasts was Mrs. Minor, the wife of a rich Philadelphian merchant, who, though he never accepted her views, yet never opposed them, even when the privacy of his home was invaded by members of the new sect, to whom, at the sacrifice of his personal comfort, his wife showed unstinted hospitality. She soon became the prophetess of the Millerites, addressed them publicly, wrote hymns for them to sing, and newspaper articles for them to read.

October 25th, 1843, had been indicated as the last day when "the stone should smite the image on the feet," but when it went by without anything particular happening, the leaders of the movement discovered that they ought to have made their reckoning by Jewish instead of by Roman time. Now, however, it was "clear from prophecy" that the day of doom would be ushered in about 3 o'clock p.m. on "the tenth day of the seventh Jewish month," *i.e.*, October 25th, 1844.

[1] This excellent Institution was visited and inspected by their Majesties the German Emperor William and the Empress during their recent visit to the Holy City. At present the Orphanage supports 294 children, amongst whom are many of the Armenian sufferers.

As the day approached it was decided to go into camp at a spot some distance from Philadelphia. Accordingly, after having addressed solemn farewell warnings "to the Sodomites" in that city, the fanatics and their families drove out to their tents. One of them nailed upon his shop shutters the notice: "Closed in honour of the King of Kings, Who will appear about October 24th. Crown Him Lord of All." The day was spent at the camp in devotional exercises. It passed away and darkness fell upon the land, and yet the trump of Gabriel did not sound. But when midnight had passed, and "the watchers for the Bridegroom" felt dangerously near napping, a terrible hurricane arose suddenly, unroofing houses, uprooting trees, destroying much shipping in the harbour. Their tents blown down, the Millerites fled panic-stricken for shelter to the homes they had left "for ever" the previous day, and were content to face the scoffs of their old neighbours in Babylon. It was a sore blow. The prophetess betook herself to fasting and prayer in hopes of finding out the chronological error that would explain *why* the Lord delayed His coming.

At last, two years after the disappointment, the meaning of it all was revealed to her. "Verily she, and no other, was the true antitype of the Biblical Esther, and as such she was to go before the King and become God's instrument to make ready the land of Israel for the King's return." Convinced that the Jewish Sabbath must be kept by Christians, she taught the same, and became one of the first founders of the sect of Seventh Day Adventists. Amongst other verses she wrote, the following specimen expresses her new faith :—

> O, who shall go up and the land now possess,
> In the name of the Highest, His sabbath redress ;
> Who will give to the long desert bowers their bloom,
> And say to His people and ransomed "Return!"?

Her enthusiasm was contagious. An "Advent-brother" became convinced that he, too, had been called to go to Palestine to prepare the land for the King's return. They would go together—and it seems that neither his wife nor her husband made the slightest objection, so perfect was their confidence in the pilgrims. Mrs. Minor's son, a lad in his teens, went with them, but had to be sent home again from Marseilles, where he had been taken sick. His mother and her companion proceeded

on their journey. They travelled as brother and sister, and were known as Mr. and Miss Adams. I shall spare you the recital of what befel them on the way. "Going up to Jerusalem" in those days meant infinitely more than in these, even to travellers who did not count upon "Divine intervention at every turn."

Leaving Marseilles, May 15th, 1849, Mrs. Minor and her companion reached Jerusalem on September 5th in the same year. Mr. Meshullam received them into his hotel, and they were induced to join hands with him in his work at Urtâs. At last Mrs. Minor knew for a certainty what work she was called to do. It was to raise funds for an "Agricultural Manual Labour School" in Palestine. She therefore returned to America. The adherents of Miller were still numerous, and many of them took up "the Palestine Mission" with enthusiasm. It was consoling to them to have something new to think about in the dreary "tarrying time." They understood now why the end had not come on "the tenth day of the seventh month." It was plain that the Land of Promise must first be made habitable before it might become the very centre of the earth, drawing all men unto it. But the Adventists and Millerites were not the only helpers Mrs. Minor gained. The Seventh Day Baptists and the Presbyterians took an interest in it, and it was spoken kindly of in "The Occident," an American Jewish weekly, as well as in other papers. "It is the only plausible plan," said "The Presbyterian," "of benefiting the Jews in the Holy Land." The same paper raised much money for the school.

On November 3rd, 1851, Mrs. Minor and a small but picked band of enthusiasts, including a mechanic, a gardener, and a farmer, set sail for the Holy Land. She was now a widow, and her son accompanied her. The new colonists brought with them tents, household furniture, tools, clothing, medicines, &c. Most of the European vegetables and fruits, such as potatoes, sweet, and the common kind, *American* peaches, &c., still cultivated at Urtâs, were first introduced by them. Others had already been brought in by Mr. Baldensperger.

In due time a leaflet, entitled "Tidings from Jerusalem," was received in the United States. It was the first report of the first Agricultural Manual Labour School in Palestine, written by Mrs. Minor under Mr. Meshullam's roof, in the midst of the unpacking of goods and the pitching of tents. It passed through

several editions. "O Mountains of Israel," is its prelude, "ye shall shoot forth your branches and yield your fruit to my people Israel, for they are at hand to come."

The colonists built a house at Urtâs at a cost of some eight hundred dollars. A tide of benefaction set in strong and steadily in aid of their work. Sir Moses Montefiore endorsed it and could be counted amongst its friends. Everything wore a rosy glow. "Our Jewish brethren," writes Mrs. Minor exultantly, "tell us, not infrequently, that our coming here is a sign that the Messiah is near, and that He will bless the land. They love us because we keep their Sabbath." But this cheering state of things was not to last. When Dr. Robinson, the explorer, visited Urtâs on May 7th, 1852, he found the colonists dissatisfied, and likely to leave as soon as they could help themselves. He says that "the idea of speedily converting the Jews, living as strangers in Palestine, into an agricultural people is altogether visionary" ("Later Bibl. Res.," p. 274). The fact was that the colonists and Mr. Meshullam had quarrelled. We need not enter into details. All the world over every quarrel has two sides to it. In this one, as is generally the case with Palestinian quarrels, there were many more sides than two. In 1853 the Americans left Urtâs never to return. They made a fresh settlement upon the plain of Sharon, and called their new home, situated on the western bank of the Wâdy Musrara, near the site of the present Temple colony of Sarona, "Mount Hope." It still bears the name, though the circumstances from which the latter was derived and those who gave it have long since been forgotten in Jaffa. Sir Moses Montefiore came to the rescue of Mrs. Minor's enterprise in its dark day. He purchased an orange garden near Mount Hope, placed it under the care of the colonists, and became their chief patron. He and Mrs. Minor were, in fact, the first to start the great movement for Jewish colonisation in Palestine, which, under the recently-coined name of "Zionism," has of late attracted so much notice. Mrs. Minor did not live to see the fulfilment of her hopes. When she died, November 6th, 1855, her son, with an adopted daughter, represented the remnant of the colony. Her tomb and those of other workers with her are still to be seen in the little graveyard at Mount Hope. Her successor at Mount Hope, an American-German, the last survivor of the German colonists mentioned by Ritter (*see* above), was brutally

murdered. The United States Government sent a man-of-war to investigate the matter, and the murderer was hanged at the yard-arm.

Of the many notices of Mrs. Minor's death, that in the American-Jewish weekly, "The Occident," seems the most significant:—" . . . . She was a true friend of Israel notwithstanding her conviction that conversion is the best method of making us Jews happy. By her practical labours in horticulture, feeble and lone woman that she was, she has proved that Palestine may be made to bloom under the hand of the husbandman. When the land of Israel again smiles with plenty, let the name of her benefactor, Mrs. Minor, be remembered with a blessing."

I have given her story fully, though condensed, because in its general features it is typical of the experiences of a good many other visionaries who came—some singly, others in parties—to settle in Palestine and "fulfil prophecy."

Towards the end of the fifties (about 1858) two German families, calling themselves "*Amenites*," because they believed that all Biblical promises would soon receive the Divine "Amen," settled at Jerusalem. Their leader, one Israel Pick, started off alone on a pedestrian tour to Moab "to discover the appointed place of refuge for believers," and perhaps also the Ark of the Covenant (compare 2 Maccabees ii, 1–7, with Matt. xxiv, 16; Mark xiii, 14; Luke xxi, 21 ; and Revelations xii, 14). He never returned. His followers remained quietly in Jerusalem. After the death of the old people their children, now grown up, joined other German communities.

On September 22nd, 1866, the American bark "Nellie Chapin" touched at Jaffa, and landed 153 souls, followers of G. J. Adams, founder of "The Church of the Messiah," a sect composed of some of the survivors of the Millerite movement, American Protestant Episcopalians, Wesleyans, Baptists, Latter Day Saints, and others. The following particulars have been kindly furnished me by the mother and sister of Mr. Clark, the present United States Vice-Consul at Jerusalem, who belonged to the company:—

"Elder Adams claimed to be called of God by revelation to preach the Gospel of Jesus Christ and raise a people to start colonisation, to show the Jews that it was time for them to begin to return to this country and build up the waste cities, and cover

the country with unwalled villages. Though sickness and difficulties arose, and were almost more than one could stand against, yet the colony was built, with wooden houses from America. These houses still stand, and four of the first colonists yet live in them as witnesses. They still believe it was God's hand that led them here. Now they can look around and see the Jews planting and building unwalled villages in all directions, just as they believed would be the case, and they thank God for letting them live to see this."

When Adams and his adherents arrived they found that the land which the then United States Consul had been authorised to purchase for them had not been bought, and so they had to camp out on the beach till the timber they had brought with them could be floated ashore—it was the only way to land it—and rough sheds erected to shelter them. It was the most unhealthy time of the year. The men and women worked hard in the fierce sunshine, the former up to their waists in the water, and without proper nourishment. Consequently *nineteen adults* and many children died before a month had elapsed. At last, ground having been bought, the houses were erected on it. But the mortality continued. Plots of ground were planted. The crops were stolen by night, and, being ignorant of the languages needed here, the settlers were the helpless victims of cruel sharpers of every description. It is no wonder that the Adamite settlers lost all courage, and that, when the German colonists of "The Temple" appeared on the scene, the former sold their property for whatever they could get and returned to America, their sad story deterring others, ready to go to Palestine, from making the venture.

The story of the "German Temple" is told by Baedeker in his guide to Palestine, so I need not occupy space by telling it. They have large colonies at Haifa, Jaffa, Sarona, and Jerusalem, supporting themselves in the three former by agriculture, viticulture, and orange growing, and at Jerusalem by handicrafts and trade. Judging from the last reports of Herren A. Fickel and F. Höfer, head men at Sarona, printed in their paper, "Die Warte des Tempels," for January 19th, 1899, the wine business in that settlement is anything but prosperous. Owing to financial losses, and the difficulty there is in getting the abundant vintages sold, they were obliged to borrow 25,000 francs (£1,000) in order to enlarge their cellars. This debt they hope to cancel in

time by making each member of the firm pay 15 per cent. of his income in grapes annually till two-thirds of the building expenses are paid off. In this way they hope that the debt will be gradually paid off, and the buildings eventually become their own property.[1]

It will be sufficient just to mention Mrs. Finn's Kurm el Khalily at Jerusalem, Rev. A. Isaacs' "Model Farm" at Jaffa (now abolished), Messrs. Bergheim's estate at Abu Shusheh, as similar undertakings on a smaller scale.

In 1885 there arrived in Jerusalem a party of Saxons—men, women, and children—led by a miner, who had persuaded these poor people to leave their homes and go with him to the Holy City, where Antichrist, who is to be the Archfiend himself, incarnate, was to be born. He professed to have direct communications with Satan. His dupes afterwards acknowledged that though none of them had ever seen the Evil One, yet that they had often heard him address their leader at their meetings. The miner may have been a ventriloquist. Arrived at Jerusalem they took up their abode in the Cotton Cavern near the Damascus Gate. What became of the *advocatus diaboli* I cannot tell. His dupes were reduced to great straits, and soon obliged to apply to the "Spaffordites" and their own countrymen at Jerusalem for help. Having learnt by bitter experience to renounce the devil and all his works, a collection was started for them and they were sent home.

I was away from Jerusalem at the time, but reading an account of this in a German paper I made enquiries, and was assured of the truth of the tale. I suppose these Saxons were what is termed "Spiritualists."

In the foregoing I have spoken more particularly about Gentile-Christian attempts at colonisation, but have also called attention to the interest which Jews, especially in America, showed in the same. It is time that I came to the story of the Jewish colonies.

After Mrs. Minor's death, the orange garden of which Sir

[1] *Special Note.*—The "Temple" colonists have lately been much encouraged by the favourable notice taken of them by His Majesty the Emperor William during his recent visit to Palestine, and in consequence of this delegates from their respective settlements met at Haifa at Easter, 1899, in order to consult on the advisability of acquiring land for fresh colonies to be occupied by the "Nachwuchs" or rising generation and new incomers from Europe, &c. Negotiations for the purchase of land are, as I hear, now being carried on.

Moses Montefiore had given her the care was placed in charge of a Jew, and after Sir Moses' death it passed into the hands of the Alliance Israèlite Universelle, which managed to evict the Jew after a couple of years' litigation. The Alliance's agent, the late Mr. C. Netter, had already, in 1870, secured 240 hectares of land, situated on the carriage-road to Jerusalem and just east of the Jaffa orange groves, and established there a school for agri-, viti-, and horti- culture. Great numbers of fruit and eucalyptus trees have been planted on the land of the institution, which boards, clothes, lodges, and trains about 250 pupils gratis for five years, and then sends the most gifted to the Alliance College at Paris to prepare them to take the management of other settlements. Three sorts of wine are made from the grapes in the school vineyards. The output in 1898 amounted to 111·504 kilolitres (1 kilolitre = 220·096 gallons). There are about 300 permanent residents at Mikveh Israel, as this school is called, not reckoning from 100 to 120 Jewish day labourers. Many of the officials in the other Jewish agricultural settlements were trained here. The present area of land belonging to Mikveh is estimated to be about 2,780 Turkish donnims.

In 1878 a number of Jerusalem Jews started a colony at Mulebbis, on the road from Jaffa to Nâblus, and at a distance of about two miles from Ras el 'Ain (Antipatris), on the high ground west of the castle and swamp. Three years later, however, they were compelled, by want of means and the general unhealthiness of the climate, to abandon the place. In the following year (1882) it was again occupied by Jewish refugees whom anti-Semitic troubles in Russia and the Balkan States had forced to come to Palestine. Twelve houses were built for them at El Yehûdîyeh, where the air is better, but the planting of immense eucalyptus groves, now numbering three-quarters of a million trees, has made Mulebbis (now called Pathach Tikva, *i.e.*, a door of hope; Hosea ii, 15) so healthy and habitable that Yehudiyeh is deserted, and the houses there are in charge of a caretaker. Pathach Tikva owns at present 13,850 donnims of land. There are 170 families resident, and of these Baron Edmond de Rothschild, of Paris, supports 25. A good many colonists own lands and houses of their own, and are said to be independent; others, not owning land or houses, support themselves by handicrafts and trade. Baron Rothschild owns 5,500 donnims of the land. Besides

the great eucalyptus groves along the marshes and in the settlement, there is a promising tea plantation, a geranium plantation for making scents, and vineyards in which over 1,000,000 vines have been planted. The grapes are sold to the great cellars at Rishon le Zion, but a cellar is shortly to be built at Mulebbis. A great part of the land, as much as would make up the area of 100 Jaffa orange gardens of the average size, has been set apart for orange growing. Water is found everywhere for the digging, and at the depth of from 3 to 8 metres. Many wells have been sunk and furnished with good irrigating machinery. The land is divided into 138 plots, belonging to different colonists. There is a dispensary, a synagogue, and schools for boys and girls. In all the colony schools Hebrew, French, and Arabic are taught. Last visited by me in April, 1899.

The Refugee Movement, above mentioned, led to the establishment of Jewish agricultural settlements all over Palestine. Amongst the earliest of these was that of Artûf, about one mile east of Zorah, Samson's birthplace, and north of the railway station named after Deir Abân. The colony was intended to be a refuge for Christian Jews as well as Jewish refugees. The Rev. A. H. Kelk, head of the London Jews' Society's Palestine Missions, did his very utmost to make the colony successful. Eight dwellings were built, and are now occupied by ten families of Bulgarian Jews, who have purchased the estate. The present manager tells me that the area is not more than 5,000 donnims.

Two Jewish colonies were started in the Jaffa district in 1882. Rishon le Zion, the first of these, is important because the wine-making cellars are here. It is on the road to Gaza, and about six miles south-east of Jaffa. The houses and factory, &c., are built on the highest point of the sandy undulation, one mile east of the 'Ayûn Kâra springs, which give the colony its Arabic name. The land of the colony (600 hectares), covered with vineyards, orchards, and eucalyptus groves, extends eastward from the 'Ayûn Kâra. The 80 buildings, like those at Pathach Tikva, are placed on both sides of four great roads, forming a great hollow square, filled up in the centre with gardens and groves. About 70 families live here, not counting a great but varying number of day labourers. Originally founded by six Russian Jews, the colony subsequently became one of Rothschild's. Most of the

settlers get help from him,[1] and, besides that, sell their grapes to his cellars, which produced 1,679·146 kilolitres of wine and 84·325 of cognac from the vintage of 1898. The difficulty they, like the Germans, have to meet is the want of a market for their wines and cognac, but I hear that depôts have been opened in London, Vienna, Berlin, St. Petersburg, and other great commercial centres. Often visited.

The second 1882 colony, last visited by me in April, 1899, is situated two and a half miles south of Rishon le Zion, and is called Wady Hanein, from its location, or Nahalath Reuben, *i.e.*, "Reuben's Inheritance," after its founder. About 26 families live here, some in a row of cottages built just inside the northern cactus hedge of the Biyaret 'Abbûd, some in the biyarah-house itself, and others in a large house situated about 100 yards north of the Biyarah, and connected with an orange grove belonging to the Alliance Israèlite. Land area, 1,550 donnims, planted with 140,000 vines and 1,500 almond trees. There is a large apiary. Supported periodically by the Jewish Colonisation Association, or J.C.A. Biyaret es Sakka belongs to it.

At the time of the refugee movement some Jewish students in Russian universities, disgusted with the treatment they received, resolved to emigrate to Palestine. Forming themselves into an association which they named "Bilow," a word formed from the initial letters of the Hebrew of Isaiah ii, 5: "O house of Jacob, come ye, let us walk in the light of the Lord," which they chose as their motto, they settled at Katrah, or Gederah, where there are now 25 houses built to the west of the fellah village of Katrah, about three and a half miles south-east of Yebnah, the ancient Jamnia. The settlement, originally established by the Russian Chovevie Zion, is now helped by the J.C.A. The former students are contented to work as day labourers in hopes of becoming independent in time. Population of "Gederah," 130 souls. The land, in area about 3,000 donnims, is used partly for cereals and partly for vineyards and orchards. The grapes are sold to the Rishon le Zion cellars. Last visited in April, 1899.

The colony of Kustîneh or Biar et Tabghah, situated about five miles south-east of Ashdod, and two west of the fellah village of Kustîneh, was originally one of Rothschild's settlements and

[1] Baron Rothschild has recently transferred this settlement to the Jewish Colonisation Association, or J.C.A.

intended for Bessarabian Jews taken over by Rothschild. It is now under the Paris Central Committee and the English Chovevie Zion, who have placed 18 families there. Area, 5,624 donnims, used for cultivation of cereals. Last visited in April, 1899.

Mazkereth Bithia (Memorial of Bithia), also named Ekron, because situated half a mile east of Ekron, or 'Akir, is another of Rothschild's foundations, and was started in 1883. About 35 Jewish families, or about 250 souls, live here. The land area, including a large piece near the village of Na'aneh on the railway line, is said to amount to 700 hectares. Luncz, in his Almanac for 1898–99, only gives it at 4,090 donnims. Cultivation of cereals, almonds, and mulberry trees (3,000) for rearing silk-worms. The Jewish year, commencing in the autumn of 1888, was observed by the settlers as the Shemita or Sabbath year (Leviticus xxv, 1–7). The white cottages of Ekron, embowered amongst groves and orchards, are seen from the railway as the trains approach and after they have passed Na'aneh. Visited twice in 1897.

The colony of Rehoboth, originally Khurbet Deirân, south-west of Ramleh, was founded in 1891 by a society of wealthy Russian Jews calling themselves the "Menucha ve Nahala," *i.e.*, "Rest and Heritage" Society. It is now managed by the J.C.A. When I visited this place in November, 1898, the manager told me that 64 families were then living here. Land area estimated at 10,500 donnims. Over 559,000 vines and 11,260 mulberry trees had been planted. Last visited in April, 1899.

The most northerly of the Jewish settlements in my district is Huderah (Khudeirah?), situated about six or seven miles south-east of Cæsarea, and close to the marshes. Though the soil is fertile the climate is unhealthy. I have visited the place twice. When I did so the first time no houses were ready, and 20 Jewish families were wretchedly lodged in an old khan. In 1897, when I again saw the place, there were about 24 habitable houses. The greater part of the land (about 2,600 hectares altogether) belongs, I am told, to branches of the Chovevie Zion at Wilna, Riga, and Kowno. There have been many deaths here from malignant fevers, especially from the so-called "yellow fever," one of the marked symptoms of which, as the colonists say, is black water passed by the sufferer. Such of the settlers as can do so leave Huderah in summer.[1]

[1] In order to obviate the necessity of their leaving the place during the hot season this year the experiment of putting up wooden huts for them on

Something has been done, with the help of Egyptian workmen, to drain the swamps, and 250,000 eucalyptus trees have been planted as well as 1,000,000 vines. This colony dates from 1890. From Huderah the red-tiled roofs of some houses at Zichron Yacob or Zimmarin can be seen. But that settlement and its daughter colonies are outside my itinerating district, and therefore I must leave the description of them to others. I am informed that the tract from Bir 'Adas and Kefr Sâba to the seaboard has been purchased by Jews and money paid, but no permission either to build or settle has, as yet, been obtained from the Government.

Some Dates, &c.

1209. Brocard, Superior of the Carmelite Order, obtains from Albert, Patriarch of Jerusalem, the rule these Monks still follow. (Frère Liévin's "Guide Indicateur," 1869, p. 596.)

1230. Pope Gregory IX nominates the Franciscans custodians of the Holy places.

1664 (*circa*). Colbert, Minister of Louis XIV, founds a farm at Beit-Dejan, on the plain of Sharon, near Jaffa. A large grove of fine old olive trees is still pointed out as having been planted by him.

1810. Lady Hester Stanhope, the niece of the celebrated William Pitt, retires to Syria, where she takes up her abode at Dahr June, near Sidon. Dies June 23rd, 1839, at the age of 63 years.

1823. First missionaries of the London Jews' Society settle in Jerusalem.

1840. Bombardment of Acre. Banners of England and Austria displayed, as in Cœur de Leon's time, over the old fortress.

1846–1848. Spittler establishes "Brüderhaus" at Jerusalem. Meshullam buys land at Urtâs.

1849. Baldensperger, first modern European agricultural colonist, settles in Urtâs. Mr. Adams and Mrs. Minor's first arrival.

the seashore a few miles distant from the settlement was tried. This experimental sanatorium has been named "Kadimo" or "Advance." Its success has, I hear, been poor.

1850. German colonists settle at Urtâs—February 4th, 1850, also Meshullum's family—June 12th. Dr. Schulz, first Prussian Consul, reaches Jerusalem. Mr. Bergheim acquires land near Jaffa. Government demands taxes from villagers of Urtâs.

1851. Arrival of first German deaconesses, and also of Dr. Sandreczki, senior—April 17th. Prussian Hospice of Knights of St. John opened—May 4th. A Turkish soldier, suspected of being a Christian in disguise, slain by Moslem in Haram area. Mrs. Minor's band of colonists leave America, November 3rd.

1852. Dr. Robinson, the explorer, visits Urtâs—May 7th.

1853. Mrs. Minor's colonists leave Urtâs and settle at "Mount Hope," near Jaffa.

1855. Arrival of a European prince, possibly the ill-fated Maximilian of Austria, received with great honour and a grand Latin procession. The Cross, for the first time since the Crusades, borne aloft through the streets of Jerusalem—June 30th. The birthday of Napoleon III saluted by cannon on David's Tower. These innovations were doubtless caused by the state of politics and the Crimean War. Mrs. Minor's death—November 6th.

1857. Remarkable shower of red mud—February 4th. Examined by Professor Dr. Roth, of Munich, found to contain small shells, Sinaitic species. Friedrich Grossteinbeck, Mrs. Minor's successor at Mount Hope, murdered. Herren Hoffman, Hardegg, and Lubeck, founders of the "German Temple" sect, visit Palestine, and decide that it is still too early to found colonies.

1858. Visit of the Russian Grand Duke Constantine, and commencement of great modern building era. Haram Area becomes accessible to Christian visitors. "*Amenites*" arrive.

1860. The Lebanon massacres. Spittler's Brüderhaus develops into an Orphanage and Trades and Agricultural School, which, in 1889, starts a branch at Bir Salim, near Ramleh.

1864–1865. The Ordnance Survey of Jerusalem and commencement of Palestine Exploration Fund's work.

1866. Arrival of the American bark "Nellie Chapin," G. J. Adams, and 153 colonists. Prussian influence in Turkey greatly furthered by Prusso-Austrian War, and victories at Königgrätz and Sadowa.

1868. Herren Hoffman and Hardegg decide that the moment for starting the "German Temple" colonies has arrived, and they accordingly purchase the houses and property of most of G. J. Adams's disheartened followers.

1869. Opening of the Suez Canal. The Emperor Francis Joseph of Austria and the Crown Prince of Prussia (afterwards the Emperor Frederick) visit Jerusalem. The Crown Prince takes possession of the Muristan.

1870. Prussia's prestige increased by her victories in France. The Alliance Israèlite Universelle open the "Mikveh Israel."

1878. Jerusalem Jews commence a settlement at Mulebbis.

1881. Mulebbis settlement abandoned. Persecution of Jews in Russia and Balkan States.

1882. Immigration into Palestine of crowds of Jewish refugees. The English "Refugees Aid Society" purchase Artûf, and start a colony there. Jewish immigrants settle at Mulebbis, Rishon le Zion, Wady Hanein, Rosh Pinnah, *i.e.*, Ja'uneh near Safed, and Zichron Jacob, or Zimmarîn, on the Carmel Range. (The daughter settlements of Zichron Jacob are Esh Shefeya, Umm et Tût, Umm el Jemal, Tantûrah, and Nealeh.)

1883. Opening of the following Jewish settlements:—Ekron and Yissod ha Ma'ala, on Lake Merom. The "Bilow" Society formed.

1884. Start of following colonies: Katra or Gederah (the Gederoth of Josh. xv, 41, and the Gazara or Cedron of Maccabbean history), and "Gesher ha Yarden," "Bridge of the Jordan," near the Jisr benât Y'akûb.

1885. A party of Saxons, Spiritualists, come to Jerusalem.

1888. A settlement prepared at Biar et Tabghah, near Kustîneh, south-east of Ashdod.

1890. A Jewish teacher and 25 Jewish day labourers from Safed start the colony "Mishmar ha Yarden," west of the Jisr benât Y'akûb. El Huderah colony started, and also 'Ain ez Zeitûn, north of Safed.

1891. A Jewish colony started at Rehoboth, formerly Khurbet Deirân, and another at Esh Shejarah, near Tabor.

1892. Land purchased for Jewish colonies at Karifeh in Trachonitis, and also at Bustros and Girgis, not far off. Jaffa-Jerûsalem Railway opened—September 26th. Rumours of land having been acquired by Rothschild for colonisation purposes at Betmia and Khan esh Sheikh, on the eastern slopes of Hermon.

1893. Athlit colony started by Rothschild.

1896. Dr. Herzl's proposal for the establishment of "A Jewish State" in Palestine.

1898. The German Emperor, William II, visits Palestine. Dr. Hezrl comes too.

1899. April—The "Temple" colonists, cheered by the notice taken of them by the Emperor William, determine to purchase land for new settlements, and enter into negotiations with landowners.

1899. October—Immigration to Palestine of a great number of Jews from Bulgaria.

1899. July 15th—Eighth centenary of taking of Jerusalem by the Crusaders under Godfrey of Bouillon.

REPORTS BY DR. CONRAD SCHICK.

The Tower of Edar.

In the *Quarterly Statement*, 1887, p. 167, there is a very interesting article on the Tower of Edar, mentioned in Gen. xxxv, 21, explaining also the words in Micah iv, 8 :—"And thou, O ! tower of the flock (Edar), the stronghold of the daughter of Zion, unto thee shall it come," &c. As "the tower Edar" means a place for guarding and protecting flocks of animals, as sheep and goats, where the shepherds might stay at night and during severe weather, and Jerome placed this tower in the neighbourhood of Bethlehem, it became synonymous with the field of Luke ii, 8, where shepherds were keeping watch over their flocks by night when "Lo, the angel of the Lord came upon them, and the glory of the Lord shone round about them : and they were sore afraid. And the angel said, 'Fear not . . . . I bring you good tidings . . . . for unto you is born this day in the city of David, a Saviour, which is Christ the Lord.'"

From ancient times even to this day this field has been shown in the

fruitful plain about half an hour east of Bethlehem. There in course of time a church was erected, and a convent, which latter has been long destroyed, and the present chapel is made out of the former crypt of the church. There is no valid reason to doubt the genuineness of the place, although it cannot be proved to be genuine. Any heap of stones there, the pilgrims, like Rauhwolf, considered to be the ruins of the "Tower Edar." Others put the position of this tower more to the north-east, near the "Sîr el Ghanem,"[1] nearly two miles from Bethlehem, as there are ruins, cisterns, &c., and the name denotes "the sheepfold."[2] I have visited these places and all the neighbourhood round about, and meditating on the matter, I could not understand how Jacob could pitch his many tents beyond these places, as there are deep and rocky valleys unfit for encampments, and even if the camp were put in some corner, where is water for the people and the animals to be got? Also it was not on the road from Rachel's tomb to Hebron. So, for the real site of the tower of Edar, a more fit place has to be looked for. This does not alter the spiritual ideas nor the proper site of the shepherds' field, for there existed throughout the land many flock-towers, and places where flocks may stay at night, and we are not bound to the one mentioned in the history of Jacob, or to the tower of Micah iv, 8.

Dr. R. F. Hutchinson, in the paper referred to, says on p. 168 :—"As to recovery of the site, I fancy the remains of the tower may still exist, probably on the road from Jerusalem (to Hebron), 1,000 paces from Bethlehem, and not at the monkish site in a valley, half an hour east of Bethlehem." He speaks then of a circle, which he drew on the large map, having a radius of one inch, equal to an English mile, round Bethlehem. In this circle falls the tomb of Rachel and some other places. "On a nullah half a mile south of the Church of the Nativity at Bethlehem stands a watch-tower without a name, and a little farther south are the eminences, Bâtn Fakûs and Hindâzi. These are all the sites within the Bethlehem circle," and agreeing with Jerome's 1,000 paces. "Does the nameless watch-tower represent that of Edar?" I would answer, No, as it is not on Jacob's track to Hebron, and as I think even too near Bethlehem and Rachel's burial place. After Rachel was buried, Jacob journeyed on, not beyond Bethlehem, as it would be if any of these places were the tower of Edar, but certainly to a place where water and pasture might be got. So I think it was more than 1,000 paces distant. Either Jerome made a mistake in his estimation, or had the wrong place in view, clinging to the "shepherd's field" east of Bethlehem. On the main road from Rachel's tomb to Hebron there are, as it seems to me, two places where Jacob may have pitched his tents and stopped for a few days: first near the pools of Solomon, and second in Wady 'Arrûb. The third would then be Hebron or its neighbourhood, where also there is abundance of water. So I would suggest that the old "tower of Edar" stood at or near to the

[1] *See* "Memoirs," iii, p. 55.
[2] "Name Lists," p. 311.

present castle,[1] at the head of the pools of Solomon, and that Jacob pitched his tents in the little plain there, south of the pools. Here are the several springs and so abundance of water, and food for the flocks and herds on the hillside round about. The names of these springs are not mentioned in the Bible, but as afterwards their water was carried to the temple at Jerusalem, the Talmud[2] calls it "Etam," and as in the time of the Kings, there was a city in the neighbourhood called Etam (2 Chron. xi, 6), this name may also have been applied to this place in ancient times. Now Edar and Etam are the same syllables, only that *r* be an *m*, as Sychor = Sychem. So that even this would bear on the matter. To the water all flocks and herds from the neighbourhood around would come to drink, and a watch-house or watch-tower would be needed. Without doubt there was one in all ages at these springs, and it would be still more necessary after the pools had been made. So although the present castle at the pools is comparatively modern, a similar one probably stood there before it. This suggestion renders the Bible narrative clear, which is not the case if the tower of Edar be put nearer to Bethlehem, and on the east far away from the main road. The tower at a place like that of the springs at Solomon's pools would be known by all, as well as the water, and hence might rightly bear the name "Tower of Edar," or of the place where the flocks assembled.

Notes on the Discovery of a Large Cistern North-West of Jerusalem; of a Perpendicular Shaft in Bishop Blyth's Ground; of some Carved Stones in the Muristan.

1. A very large ancient cistern, with rounded corners, has been found on the north-west of the city, near the road going towards the ash heaps and Nebi Samwel. In the same neighbourhood, on the contour line numbered 2,579 on the Ordnance Survey map $\frac{1}{2500}$, between the road and the "old cistern," was discovered "one of those deep holes or clefts in the rock strata of which several have been found on this side of Jerusalem."

2. About 24 feet south of the well mouth, in the centre of the Damascus road, where it branches, west of the so-called "tombs of the kings" north of Jerusalem, a perpendicular *shaft*, cut into the rock, and 36 feet deep, was discovered on the ground of the English Bishop, Dr. Blyth. The shaft is about 50 feet north of the tomb examined and described by Mr. A. C. Dickie in the *Quarterly Statement*, 1896, p. 305, *et seq.* The tomb is 18 feet deep, and hence this newly discovered shaft is double its depth, and about 8 feet deeper than the level of the *sunken court* east of the entrance to the said royal tombs. There was water in the shaft for several feet high, as in a cistern, so the lower end could not be examined. I thought at first it may be only a second mouth of the cistern the mouth of which is in the centre of the street, at a level of

[1] "Memoirs," iii, p. 91. [2] Yoma, 81*b*.

2,511 feet above the sea, but on finding the surface of water in both of a different height, this cannot be, and I came to the conclusion that it was to collect the water accumulating in the lower tombs of the kings, to keep them dry, and that the water would from time to time be drawn up by buckets from the shaft. However, it wants more exact examination. I do not know how far Dr. Bliss and Mr. Macalister have examined the matter and reported on it.

3. The removal of the earth from the Greek part of the Muristan is going on again, and several interesting carved stones have been found, of which (if God permit) I will more fully report in my next and illustrate with drawings. The shaft leading to the stair by which Sir Charles Warren found the underground large tanks in the year 1865,[1] and myself at the time have measured, is not laid bare; when it is, someone will be able to go down and make fresh measurements.

DERIVATIVES OF THE ANCIENT CUBIT OF 20·610̇9 INCHES.

By Lieut.-General Sir Charles Warren, K.C.B., F.R.S.

If we take consecutively 18, 12, 11, 9, 8, 7, 6, 5, tenths of 70,000 cubic inches (the content of the ancient double Royal cubit (20·610̇9 inches) cubed) and extract the cube roots we obtain the following cubits: 25·065, 21·89, 21·26, 19·89, 18·29, 17·30, and 16·34 inches. If we take four and five-sixths of 70,000 and extract the cube roots we obtain cubits of 18 and 19·39 inches.

With six-sevenths, 19·57 inches, and with $\frac{64}{70}$ we obtain 20 inches.

When these are compared with those found by Petrie from existing remains all over the world, in "Inductive Metrology," it will be found that the whole of the cubits he mentions are accounted for except those mentioned under columns "Digit," "Copass," and "Various" in his table at the end of the book. A table is attached showing the results obtained.

The following interesting points will be noticed:—

The most ancient cubit ranking after 20·610̇9, so far as we know at present, is that of Gudea, 19·57 inches.

[1] "The Recovery of Jerusalem," p. 272.

Next come a batch of four cubits, 25·065, 21·89, 21·26, and 19·89, called by Petrie respectively the Royal Persian, Hebrew and Chaldean, the Phœnician (foot), Assyrian cubit, and half Assyrian great U. Of these 25·065 and 19·89 are closely allied, the content of the former cubed being exactly double the content of the latter.

We then have three cubits of 18·29, 17·38, and 16·34, from which the Olympic, ancient Roman, and Plinian feet are derived.

Distinct from the above are two cubits of 19·39 and 18·00 inches, which correspond to Petrie's "double of Pythic foot" and "Hasta (?)."

Distinct again are two cubits 20 and 13·33 inches, based apparently on the Drusian foot. The 16-inch cubit of the "Handbook of the Bible" is evidently the same as the 20-inch cubit here given as they measure the same temples and synagogues. I think it doubtful whether this cubit is not the same as that of 19·89, but Petrie considers the unit of 13·33 inches distinct from that of 13·2 inches.

Comparison of Cubits derived from the ancient 20·61$\dot{0}\dot{9}$*-inch Cubit, with all the Cubits of the World, given by F. Petrie in "Inductive Metrology."*

Proportion.	Content Cubic Inches.	Derived Cubit.	Petrie's Cubits. Maximum.	Petrie's Cubits. Minimum.	Names of Cubit, according to Petrie.
7	70,000	20·61$\dot{0}\dot{9}$	...	...	Ancient Royal cubit.
6	60,000	19·57	...	...	Scale of Gudea from Hemmel.
10	70,000	20·61$\dot{0}\dot{9}$	20·76	20·6	Ancient Royal cubit, Egyptian and Babylonian.
		12·36	12·47	12·4	Babylonian foot, $\frac{3}{5}$ 20·61.
18	126,000	25·065	25·38	25·1	Royal Persian, Sacred Hebrew and Chaldean.
		16·710	16·89	16·66	Aretni [Royal foot ($\frac{2}{3}$ 25·065)].
12	84,000	21·89	22·5	21·48	Rude stone monuments of Great Britain and France (Phœnician foot, one half).
11	77,000	21·26	21·40	21·30	Assyrian cubit.
9	63,000	19·89	20·24	19·90	Half Assyrian great U (foot = 13·22).
7	49,000	18·29	12·23	12·11	Olympic foot.
		12·19			
6	42,000	17·38	11·74	11·51	Ancient Roman and Greek foot ($\frac{3}{5}$ 17·35).
		11·58			
5	35,000	16·34	10·92	10·80	Plinian foot.
		10·89			
6	70,000	20·61$\dot{0}\dot{9}$	...	...	Ancient Royal cubit.
5	58,333	19·39	19·30	18·92	Double of Pythic foot.
4	44,656	18·00	17·90	17·82	Hasta?
35	70,000	20·61$\dot{0}\dot{9}$	...	...	Ancient Royal cubit.
32	64,000	20·00	20·2	...	Synagogues and late temples, Syria.
		16·00	...	...	Do., according to "Handbook of Bible."
		13·33	13·45	13·16	Drusian foot.

The Cubit of Babylonia, b.c. 2500 to 2800.

On the sitting statue of Gudea (or of his architect), *circa* b.c. 2500 to 2800, is a plan of a town, and alongside of it a scale known as the scale of Gudea (De Sarzec's "Decouvertes"). There is no certainty what the scale means, but the strong presumption is that it indicates the linear measures of that period for building purposes, and as it is the only vestige of an early linear measure yet found out of Egypt, it is naturally a scale of considerable importance to investigators of the length of early cubits. It may have been used only locally or throughout the country; it may have been used for temples or for all building purposes; but whatever purpose it was designed for it was evidently a linear measure of some kind connected with buildings.

I propose to compare the measures given on this scale with the ancient cubit of 20·61$\dot{0}\dot{9}$ inches recorded in the Great Pyramid of Gizah, and the date of which is supposed to be about b.c. 4000, and to do so I will make use of measurements of the former given by Professor Hommel in his article on Babylonia, Hastings's "Dictionary of the Bible" (1898). From the measurements of this scale he deduces the length of the double cubit of that period as lying between 990–996 mm. coincident with the length of the second's pendulum, viz., 992·35 mm. in the latitude of Babylon (30° N. lat.), and arrives at the standards of linear, square, and cubic measure and weight of that period, and I will show how far these results agree with those which can be derived from the ancient cubit of Babylon and Egypt.

The Babylonian cubit of this period appears to have been derived from the content of the ancient double cubit (20·61$\dot{0}\dot{9}$ inches) cubed, 70,000 cubic inches, by taking *six* out of seven parts, and abstracting the cube roots of this quantity (60,000 cubic inches) = 39·1487 linear inches. This I take to be the double cubit of Gudea, it equals about 994 mm., which lies between the 990–996 mm. given by Hommel. He states that the double cubit was divided into 10 parts, and this serves as the side of a cube containing exactly a *ka* when filled with water (weighing 990 grammes), 360 *ka* = a *gur*. A cube on 3·9148 inches being the tenth part of 39·1487 inches, will contain exactly 60 cubic inches, and 360 of these (the *gur*) amount to 2,160 cubic inches.

He also points out that the Babylonian *gur* and *ka* correspond to the Hebrew *kor* and *kab*.

The two measures will thus be—

Babylonian	*Gur* = 21,600 C.I.	*Ka* = 60 C.I.
Hebrew ..	*Kor* = 23,333 C.I.	*Kab* = 129·6 C.I. (*Quarterly Statement*, July 1899, p. 267.)

If the *ka* be taken as the double mina it equals 15,158 Imperial grains, and therefore (at 60 shekels to the mina) the shekel equals 252·64 Imperial grains, or exactly the weight of a cubic inch of rain water.

Hommel also speaks of two other weights, one of them $\frac{5}{6}$, and the other $\frac{10}{9}$, of the light or half mina.

$$\frac{10}{9} \text{ of } 30 \text{ C.I.} = 33\dot{3} \text{ C.I.} \left(\frac{1}{3} \text{ of } 100 \text{ C.I.}\right)$$

$$\frac{5}{6} \text{ of } 30 \text{ C.I.} = 25{\cdot}0 \text{ C.I.} \left(\frac{1}{4} \text{ of } 100 \text{ C.I.}\right)$$

He also points out that the sixtieth part of $\frac{10}{9}$ of the light mina equals the Egyptian *kab*.

$$\frac{15{,}158 \times 10}{2 \times 60 \times 9} = 140{\cdot}3 \text{ Imperial grains (}\textit{see}\text{ Table IX, } \textit{Quarterly Statement}\text{, October, 1899, p. 367).}$$

It thus seems that the cubit and other measures derived by Hommel from the scale of Gudea can all be derived from the ancient Egyptian cubit of 20·61$\dot{0}\dot{9}$, and it will be seen that they differ in very small degree from those given by Hommel from actual measures and weights.

Babylonian cubit of Gudea (from 20·61$\dot{0}\dot{9}$ inches)

$$= \frac{1}{2}\sqrt[3]{\frac{6}{7} \times 70{,}000} \text{ C.I.} = 19{\cdot}5743 \text{ inches linear.}$$

Babylonian cubit as given by Hommel

= 19·48 to 19·606 inches linear
= 495 to 498 mm.

As derived from 19·5743 inches cubit—

Gur = 21·60 C.I. *Ka* = 60 C.I. or 15,158 Imperial grains.

As deduced by Hommel—

Ka = 15,275·7 Imperial grains.
= 990 grammes.

EGYPTIAN WEIGHTS AND MEASURES SINCE THE EIGHTEENTH DYNASTY AND OF THE RHIND MATHEMATICAL PAPYRUS.

By Lieut.-General Sir Charles Warren, K.C.B., F.R.S.

Mr. F. L. Griffith in "Notes on Egyptian Weights and Measures," vols. xiv and xv, "Proceedings Bib. Arch.," points out that the *uten* weighed from 1,400 to 1,500 grains Imperial, and that the kiti (kat) from the beginning of the New Kingdom weighed from 140 to 150 grains Imperial.

He gives the following from the Rhind papyrus and other records:—

Henu (or hon) = 5 utens of water.
Hekt (or gallon) = 10 *henu*.
Apt (dell or tovit) = 4 hekt.

By taking the lower value of the *kat* or *kiti*, this agrees exactly with the measures I have given in Table IX, "Ancient Weights and Measures in the East," Palestine Exploration Fund *Quarterly*, October, 1899.

There is, however, a difference in the number of hons or *henu* to the cubic cubit, which he takes at 20·6 to 20·65 inches. I give 320 hons at 27·3 cubic inches each = 8,755 cubic inches. Mr. Griffith gives 300 *henu* at 29·2 cubic inches each = 8,760 cubic inches. This he does by adopting the higher value of the kiti as 150 grains Imperial; and in a note, p. 406, vol. xiv, objects to 320 *henu* to the cubit cubed as leading to a hon of 27·3 to 27·8 cubic inches.

There is no doubt a great difficulty on the subject if the 300 *henu* to a cubit cubed is to be adhered to. Either Mr. Griffith's value must be accepted when the cubit stands at 20·6109 inches, or else the cubit must be reduced to 20·16 inches, for which I can see no cause.

At the same time it seems to me that there is the great objection to Mr. Griffith's values that the cube sides do not represent either palms or inches, and we have no record of any other units being used.

I think, therefore, that the following are the values to be attached to the various measures given by Mr. Griffith, and in Table IX alluded to (the cubit being taken at 20·6109 inches) :—

	Side cubed.
Cubic cubit = 8,750 cubic inches = 320 hons	A cubit.
The *khar* or $\frac{2}{3}$ (cubit)^3 = 5,832 cubic inches = 213·3 hons	18 inches.
The *apit* or $\left(\frac{1}{2}\text{ cubit}\right)^3$ = 1,092·5 cubic inches = 40 hons	Half cubit.
The *hekt* (or gallon) = 273·1 cubic inches = 10 hons ..	6½ inches.
The *hon* or *hennu* = 27·3 cubic inches = 1 hon	3 inches.
The *uten* = 5·46 cubic inches = ⅛ hon	1·75 inches.

It seems to me that the Egyptians were far more likely to have used an incorrect multiple (viz., 300 and 200 for 320 and 213·3) in these calculations than to have used sides for their cubes which did not accord either with palms or inches.

It will be noted that the *khar* of $\frac{2}{3}$ (cubit)^3 is exactly one-quarter of the kor or homer (*see* Table V, Palestine Exploration Fund *Quarterly*, July, 1899, p. 266), which measure $\frac{1}{2}$ (36 inches)^3.

Mr. Griffith also speaks of a measure of 20 khar; this is exactly 2½ (36 inches)^3 or 1⅔ (double cubit)^3.

I think it necessary to point out that the term $\frac{2}{3}$ cubit cubed may be interpreted in two ways, either as $\frac{2}{3}$ (cubit)^3 or as $\left(\frac{2}{3}\text{ cubit}\right)^3$; the former being to the latter as 1 : $\frac{4}{9}$.

Mr. Griffith does not appear to have noticed that $\frac{2}{3}$ (cubit)^3 is a cube of 18 inches: (18)^3 = 5,832 cubic inches, for cubit of 20·6109. Mr. Griffith, p. 421, vol. xiv, gives 5,827·88 cubic inches for cubit of 20·6. This is another strong proof of the ancients having made their cubic measurements with the cubic inch = $\frac{1}{70{,}000}$ of double Royal cubit cubed.

THE COFFER OF THE GREAT PYRAMID.

By Colonel C. M. Watson, C.M.G., R.E.

In an interesting article on the "Ancient Standards of Measure," which appeared in the *Quarterly Statement* for July, 1899, General Sir C. Warren discusses, among other matters, the method by which the dimensions of the sarcophagus, or coffer, in the Great Pyramid were arrived at (*see* pp. 252 to 257). He gives some rather elaborate calculations in order to obtain the measures probably intended by the original designer, and works these out to several decimals of a British inch.

It appears to me that his conclusions are much more complicated than is necessary, and that it is rather more likely that the vessel was constructed on the ordinary measures in use in Egypt. A study of the coffer certainly leads to this, and indicates a much simpler, though at the same time a very ingenious, design.

The ancient scales which have been found, and the measurements of the monuments, prove that the usual building unit in ancient Egypt was a cubit of about 20·65 British inches in length, divided into 7 palms or handbreadths, each about 2·95 inches in length. This cubit is frequently called "the royal cubit," to distinguish it from the common cubit, which was 6 palms in length. Some writers are doubtful whether the measure of a common cubit was used in Egypt, but it cannot be questioned that a cubit of 6 palms is much more nearly equal to the ordinary cubit of a man than a cubit of 7 palms, and the suggestions which I propose to bring forward with regard to the coffer of the Great Pyramid certainly lead to the conclusion that this smaller cubit was regarded as a measure by the Pyramid builders.

This suggestion is that the dimensions of the coffer—lineal, superficial, and solid—are based, not upon the length of the cubit of 7 palms only, but upon a combination of the lengths of this cubit with that of the common cubit of 6 palms.

It is necessary in the first place to show that these dimensions can be expressed in terms of the Egyptian palm of 2·95 British inches. Dr. Petrie, whose measurements of the Pyramids were taken with an accuracy and care worthy of the greatest admiration, devoted special attention to the determination of the dimensions of the coffer, and he took no less than 950 different measures

of it, so as to arrive at an accurate mean result. He has pointed out that the coffer was by no means perfectly made, and the rough usage to which it has been exposed for a great number of years has no doubt appreciably altered it in some respects. At the same time we cannot be wrong in taking the mean dimensions which he has recorded as not being far from the original dimensions of the vessel, as it existed when placed in the Pyramid. These mean dimensions are as follows :—

Mean exterior length	89·62	British	inches.
,, depth	41·31	,,	,,
,, breadth	38·50	,,	,,
Mean interior length	78·06	,,	,,
,, depth	34·42	,,	,,
,, breadth	26·81	,,	,,
Mean thickness of north end ..	5·67	,,	,,
,, ,, east side ..	5·87	,,	,,
,, ,, south end ..	5·89	,,	,,
,, ,, west side ..	5·82	,,	,,
,, bottom	6·89	,,	,,

If we divide each of these numbers by 2·95, we obtain the numbers of Egyptian palms which are most nearly contained in each of the mean dimensions, as recorded by Dr. Petrie. The following table shows the results as thus calculated :—

	Calculated Dimensions.		Actual mean dimension as given by Dr. Petrie, in inches.	Difference in Inches.
	In palms of 2·95 British Inches.	In British Inches.		
Exterior Length ..	30	88·50	89·62	+1·12
,, Depth ..	14	41·30	41·31	+0·01
,, Breadth ..	13	38·35	38·50	+0·15
Interior Length ..	26	76·70	78·06	+1·36
,, Depth ..	$11\frac{2}{3}$	34·42	34·42	0·00
,, Breadth ..	9	26·55	26·81	+0·26
Thickness, North End	2	5·90	5·67	−0·23
,, East Side	2	5·90	5·87	−0·03
,, South End	2	5·90	5·89	−0·01
,, West Side	2	5·90	5·82	−0·08
,, Bottom	$2\frac{1}{3}$	6·88	6·89	+0·01

It will be seen that the calculated dimensions in palm agrees very closely with the actual mean dimensions. The only error of any importance is that the coffer is about an inch longer than it should have been, and this is only a little over 1 per cent. of the length. Probably this error was not noticed when the block was cut out of the quarry. The same small excess is naturally repeated in the length of the interior, as the line for cutting out the latter must have been set off by marking a width of two palms all round the top exterior edge. The error was slightly increased by cutting the north end of the coffer about a quarter of an inch too thin.

As Dr. Petrie has pointed out, and as anyone can see by examining the coffer, it was not finished with mathematical accuracy, and the small differences between the theoretical and actual dimensions are less than might have been expected.

Having thus arrived at the dimensions probably intended in palms, I will show how they can be converted into cubits.

The exterior length is 30 palms, which are equal to 5 common cubits of 6 palms each.

The exterior depth is 14 palms, which are equal to 2 royal cubits of 7 palms each.

The exterior breadth is 13 palms, which are equal to 1 royal and 1 common cubit.

The interior length is 26 palms, which are equal to 2 royal and 2 common cubits.

The interior depth is $11\frac{2}{3}$ palms, which are equal to $1\frac{2}{3}$ royal cubits.

The interior breadth is 9 palms, which are equal to $1\frac{1}{2}$ common cubits.

Perhaps it will be simpler to use the letter R to express the length of a royal cubit, and C to represent the length of a common cubit. With these symbols the dimensions may be expressed as follows:—

Exterior length	.. ..	=	5 C.
,, depth	.. ..	=	2 R.
,, breadth	.. ..	=	R + C.
Interior length	.. ..	=	2 (R + C).
,, depth	.. ..	=	$1\frac{2}{3}$ R.
,, breadth	.. ..	=	$1\frac{1}{2}$ C.
Thickness of sides and ends		=	$\frac{1}{3}$ C.
,, bottom	.. ..	=	$\frac{1}{3}$ R.

The whole of the linear dimensions can, therefore, be simply expressed in terms of the lengths of the royal and common cubit used in combination.

The superficial dimensions can be calculated without difficulty. The exterior surface of the coffer is equal to the sum of the surface of the four sides and the bottom added to the surface of the top, of two palms in width all round the coffer.

Taking the dimensions in palms, the exterior surface is equal to $86 \times 14 + 30 \times 13 + 78 \times 2$, equal to 1,750 square palms. As a square royal cubit is equal to 49 square palms, and a square common cubit is 36 square palms, it is easy to see that the exterior surface $= 10\ R^2 + 35\ C^2$, using R and C, as before, to denote the lengths of the royal and common cubit.

The interior surface is equal to the sum of the four sides and bottom, and, taking the dimensions in palms, is equal to $70 \times 11\frac{2}{3} + 26 \times 9$, equal to $1{,}050\frac{2}{3}$ square palms. This reduced to cubits is equal to $6\ (1\frac{2}{3}\ R)^2 + 3\ C\ (R + C)$. If the $\frac{2}{3}$ square palm is neglected, and the interior surface is taken as equal to 1,050 palms, it can be expressed by the form $6\ R^2 + 21\ C^2$, or just three-fifths of the exterior surface.

I will now consider the exterior and interior solid dimensions, which are the most interesting. The total exterior capacity is equal to $30 \times 14 \times 13 = 5{,}460$ cubic palms, and the interior to $26 \times 9 \times 11\frac{2}{3} = 2{,}760$ cubic palms, so the exterior appears to have been designed to be double the interior capacity. The volume of stone in the coffer is, of course, equal to the interior capacity; at least, this appears to have been the intention of the designer, although it can be seen from Dr. Petrie's calculations that the proportion of the volume of stone to the interior capacity is as 1 to 1·018, instead of 1 to 1. This is evidently due to the fact that the sides of the interior were cut away rather too much, as I have already shown on p. 153.

The exterior capacity can be conveniently represented in terms of the royal and common cubits by the following formula. Capacity $= 10\ R\ C\ (R + C)$. This is a neat combination of the two cubits.

The interior capacity $= 5\ R\ C\ (R + C)$.

There is another way of representing the exterior capacity which, if intended, was very ingenious. It is almost exactly equal to the sum of the volumes of a cube of 2 royal cubits' side

(14 palms), and of a cylinder of 2 common cubits in radius and 1 common cubit in height.

	Cubic palms.
Cube of 14 palms	= 2,744
Cylinder of 12 palms radius and 6 palms in height (taking π as equal to $\frac{22}{7}$)	= 2,715·43
Total	5,459·43

5,459·43 is almost exactly equal to 5,760, which I have already shown to have been the probable designed capacity of the coffer. A very small alteration in the value of π would make the comparison exact. This value for the external capacity is expressed by the formula—

$$\text{Exterior capacity} = (2\ R)^3 + 4\pi C^3.$$

The interior capacity, being half the exterior, is of course equal to the mean of the volumes of a cube of 2 royal cubits side, and of a cylinder of 2 common cubits radius and 1 common cubit in height.

The volume of the stone in the sides and bottom of the coffer appear also to follow a simple rule.

As the thickness of the sides and ends appears to have been intended to be 2 palms, and the thickness of the bottom $2\frac{1}{3}$ palms, we have the relations:—

Volume of bottom	$= 30 \times 13 \times 2\frac{1}{3} = 910$	cubic palms.
,, one side	$= 26 \times 11\frac{2}{3} \times 2 = \frac{2}{3}(910)$	,,
,, one end	$= 13 \times 11\frac{2}{3} \times 2 = \frac{1}{3}(910)$	,,

The volume of the bottom is therefore equal to the sum of the volume of one side and one end, and is also equal to one-third of the interior capacity of the coffer.

I have no idea why the two cubits should have been used in the construction of the coffer, but it is rather remarkable that the use of a long and short cubit in the same structure appears also to have been adopted in the great altar of sacrifice in the Temple of Jerusalem, for we read in the Beth Habbechereh, chap. i, 6,[1] that "of the 10 cubits in the height of the altar some were of 5 handbreadths and some were of 6 handbreadths."

[1] See *Quarterly Statement*, 1885, p. 39.

The Babylonian cubit of 5 handbreadths corresponded to the Egyptian cubit of 6 handbreadths, and that of 6 handbreadths to the Egyptian of 7 handbreadths.

The use of the two handbreadths also appears in the dimensions of the king's chamber of the Great Pyramid, in which the coffer is placed.

Taking again Dr. Petrie's measurements, we get the following dimensions in palms for the king's chamber :—

	Calculated Dimensions.		Actual mean dimension as given by Dr. Petrie.	Difference in Inches.
	In palms of 2·95 British Inches.	In British Inches.		
Length	140	413·00	412·65	−0·35
Breadth	70	206·50	206·29	−0·21
Height	78	230·10	230·10	0·00

Using the same symbols as before—

The length.. ..	=	20 R.
Breadth	=	10 R.
Height	=	6 (R + C).
Content	=	1,200 R^2 (R + C).
	=	1,400 R C (R + C).

The content of the king's chamber is therefore equal to 140 times the capacity of the coffer.

On the whole, I think that the explanation of the dimensions of the coffer by the combination of the two cubits appears to be simpler than that given by Sir C. Warren. It may probably have some hidden meaning, but as to this I do not venture to give any opinion.

DATES ON WHICH PASCHAL FULL MOONS OCCUR.

By Lieut.-General Sir Charles Warren, K.C.B., F.R.S.

Questions have been asked (*vide Quarterly Statement*, January, 1898) as to the dates of Paschal full moons about A.D. 33, and it has occurred to me that the tables attached to the calendar of the Book of Common Prayer might be made use of for this purpose if Table II be extended backwards sufficiently far. I have carried it back to the year 5000 B.C. in the form of a supplementary Table II, and by means of its use the dates of full moon can be obtained with the least possible amount of calculation for any period B.C., however remote, with the same facility that the dates of Paschal full moon can be found in the existing Table II. The possible error ought not to be more than a day, but the date will be found according to the Gregorian calendar and a correction will be required to turn this date into Julian years, which are used by astronomers. It is to be observed, however, that for purposes of comparison the Gregorian calendar is the simplest to use, as by it the vernal equinox occurs between March 20th to 22nd for all ages, provided a correction of a day is made for every 3,600 years from the point of departure of the two calendars.

Before giving the results of this use of this supplementary Table II, I will first give some observations on the calendar.

In the year 46 B.C. Julius Cæsar reformed the calendar, adapting it to the sun's course and giving 365 days to the year with 100 leap years in 400 years (*i.e.*, one extra day every fourth year). Owing to this reform the winter solstice in the year B.C. 46 fell on December 24th, and January 1st B.C. 45 coincided with the mean new moon. The months and number of days in each month are the same now as when established in this reformed year, called the *Julian* year.

The Julian calendar supposes the solar or tropical year to consist of 365·25 solar days. The actual length of the tropical year (the interval between two successive passages of the sun through the mean vernal equinox) is about 365·24222 mean solar days. Thus in 400 years there would accumulate $(365{\cdot}25 - 365{\cdot}24222) \times 400 = 3{\cdot}112$ solar days.

This accumulation in the fourth century A.D. amounted to over

two days, when the first Æcumenical Council (of Nice) A.D. 325 legislated with regard to the observance of Easter, fixing the vernal equinox on March 21st. In the sixteenth century the accumulation amounted to over nine days, causing great inconvenience with reference to the fixing of the Church festivals, and Pope Gregory in 1582 again revised the calendar, removing 10 days (somewhat more than the accumulation, since the Council of Nice, actually consisted of), and allowing for the future only 97 leap years instead of 100 in 400 years.

This brings the calendar right to ·112 solar day in 400 years, causing an accumulation of one day in 3,600 years. In order to remedy this the French astronomer, Delambre, proposed that the years A.D. 3600 and every multiple of 3,600 should not be a leap year, and a similar correction of this nature is required in using the supplementary Table II beyond B.C. 3600.

The Gregorian calendar coincides with the Julian calendar during the period A.D. 200 to A.D. 300. That is to say, 10 days were taken off for the years A.D. 1100, 1000, 900, 700, 600, 500, 300, so that in adjusting the dates of the first century found in the Gregorian style to the Julian style, two days must be subtracted for the years A.D. 200 and 100.

To carry back the Gregorian style into the period B.C. there should be a leap year at 400 years backwards from A.D. 400 (*i.e.*, in the year before A.D. 1), in other words, in B.C. 1, and from thence the leap years are carried back at intervals of four years, so that the three leap years omitted in every 400 years fall on B.C. 101, 201, 301, 501, 601, 701, 901, 1001, &c., and the days on which leap years remain fall on B.C. 601, 801, 1201, &c. The rule for finding the Sunday letter in any year B.C. is therefore different to that for years A.D.

The rule also for finding the golden number for years B.C. differs from that given in the table for years A.D.

The golden number for the year A.D. 1 is II, for the year B.C. 1 is I, for the year B.C. 2 XIX, and so on: therefore the rule is to divide the year B.C. by XIX and subtract the remainder from XXII, and the result will give the golden number, except when it is above XIX, when XIX must also be subtracted.

There are two methods of finding the dates of full moons by means of the tables in the Book of Common Prayer, either by using the supplementary Table II appended to this paper or else

by deducting 1,040 or its multiples from the year in which the Paschal full moon is required, so as to bring it within range of the tables in the Book of Common Prayer. This can be done owing to the fact that 1,040 years is a cycle very nearly perfect, in which there are an even number of days, years, and lunations with an error of little over one hour.

According to Bessel ("Chauvenet's Astronomy," vol. i, p. 59), the length of the tropical year in A.D. 1800 was 365·242220027 days, which, multiplied by 1,040, gives 379,851·908828 days. In 1,040 Julian years of $365\frac{1}{4}$ days there are 379,860·0 days, leaving a difference of 8·091172 days. A correction of eight days in every 1,040 Julian year will thus bring the number of days right to ·0911 day, and in 3,600 years at this rate there will be an error of little more than $6\frac{1}{2}$ hours. In the same number (3,600) of Gregorian years there is an error of just one day.

The year, however, has an annual decrease of about ·595 second per annum, so that about 2,000 to 3,000 years ago 1,040 tropical years were nearly exactly 379,852 solar days.

There are 29·5305887 days in a lunation (29 days 12 hours 44 minutes 3 seconds), or 2,551,442·66368 seconds, which, multiplied by 12,863, gives 1,040 years within two hours), and even nearer when the necessary corrections are applied.

This close approximation of 1,040 years to a perfect cycle was discovered by De Cheseaux, a Swiss astronomer, in the seventeenth century, and called by him the Daniel cycle, because he arrived at it from the examination of the day numbers in the Book of Daniel.

Dr. Grattan Guinness has founded a series of tables of dates of new moons, ranging from B.C. 1622 to A.D. 1934, upon this cycle and that of 2,300 years, and the Superintendent of Nautical Almanac (in letter of March 23rd, 1895), quoted in Guinness's tables ("Creation Centered in Christ"), states that the cycles of 2,300 and 1,040 years are sufficiently accurate to be put to practical use for the computation of the positions of the sun and moon at distant epochs.

In these tables the lunation is taken at 29·5305916 days, which requires no correction and is said to *yield better results* than the best and most accurate measures of the lunation now used by astronomers. In any case the difference over 10,000 lunations only amounts to about 11 minutes, and need not be considered for practical purposes of fixing dates of new and full moon.

The great advantage of Guinness's tables is that at every 1,040 years the mean new moon comes back to the same hour of the mean day, so that these tables can be extended without difficulty for centuries beyond their present limit of B.C. 1622, and I have used them in preference to Ferguson's tables in checking the dates of full moon deduced from the Book of Common Prayer.

In order to show with what accuracy the tables of the Book of Common Prayer will give the date of full moon over long intervals, I will first take the year 1899 and years at intervals of 1,040 years from that date backwards and forwards, and ascertain, by means of Table II with its supplement, on what day the full moon will fall. This is tabulated below (Table A), giving the golden numbers, cypher, day of month, and dominical letter.

It will be seen that, March 26th being the day of Paschal full moon A.D. 1899, the tendency is to go forward to March 27th in the past and back to March 25th and 24th in the future. This is probably owing to the error of a day beyond 3,600 years. Allowing for this error, the Prayer Book gives the same results as Guinness's Tables to a day.

TABLE A.

	From Book of Common Prayer, with Sup. Table II.					Obtained directly or deduced from Guinness's Tables. Jerusalem Civil Time.												
				Gregorian Years.		Julian Years.						Gregorian Years.						
						M. Vernal Equinox.				M. New Moon.				M. New Moon.			M. Vernal Equinox.	
	Golden Numbers.	Cypher.	Dominical Letters.	Full Moon.	Days.		d.	h.	m.		d.	h.	m.		d.	h.	m.	d. h. m.
B.C. 4342..	XI	4	—	March 27	− 36	A.	26	7	57	A.	17	1	17	M.	12	1	17	M. 21 7 57
3302..	VI	9	—	„ 27	− 28	A.	18	6	19	A.	9	1	17	M.	12	1	17	M. 21 6 19
2262..	I	13	—	„ 26	− 20	A.	10	4	41	A.	1	1	17	M.	12	1	17	M. 21 4 41
1222..	XV	17	—	„ 26	− 12	A.	2	3	3	M.	24	1	17	M.	12	1	17	M. 21 3 3
182..	X	23	—	„ 27	− 4	M.	25	1	22	M.	16	1	17	M.	12	1	17	M. 21 1 22
A.D. 859..	V	26	—	„ 25	4	M.	16	23	42	M.	8	1	17	M.	12	1	17	M. 20 23 42
1899..	XIX	1	A	„ 26	12	M.	8	22	2	F.	28	1	16	M.	12	1	16	M. 20 22 2
2936..	XIV	6	I	„ 26	20	F.	28	20	24	F.	20	1	16	M.	12	1	16	M. 20 20 24
3979..	IX	10	—	„ 25	28	F.	20	18	46	F.	12	1	16	M.	12	1	16	M. 20 18 46
7099..	XIII	24	—	„ 25	52	J.	27	17	8	J.	19	1	16	M.	12	1	16	M. 20 17 18
8139..	VIII	28	—	„ 24	60	J.	19	15	30	J.	11	1	16	M.	12	1	16	M. 20 15 30

Guinness's Tables.

It will be seen from the above that the date of full moon can be obtained to a day.

NOTE.—It is to be noted that the Prayer Book gives full moon, while Guinness's Tables give new moon; the difference being between 14 and 15 days.

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Table B.

I will now take certain dates which are known or are derived from Guinness's Tables:—

	From Book of Common Prayer, with Sup. Table II.					Derived from Guinness's Tables. Jerusalem Civil Time.			
				Gregorian Years.		Julian Years.		Gregorian Years.	
——	Golden Number.	Cypher.	Dominical Letter.	Full Moon.	Days.	Vernal Equinox.	New Moon.	New Moon.	Vernal Equinox.
						April. d. h. m.	April. d. h. m.	March. d. h. m.	March. d. h. m.
B.C. 4142 ..	II	5	E	April 6 ..	33	24 18 24	25 17 41	23 17 41	22 18 48
4017 ..	XIII	5	D	,, 5 ..	33	23 1 31	23 0 46	21 0 46	21 1 31
3702 ..	V	7	D	,, 5 ..	30	21 8 52	21 5 12	22 5 12	22 8 52
2662 ..	XIX	12	E	,, 6 ..	22	13 7 12	13 5 12	22 5 12	22 7 12
1622 ..	XIV	16	D	,, 5 ..	14	5 5 32	5 5 12	22 5 12	22 5 32
1285 ..	VI	18	D	,, 5 ..	11	2 3 20	2 2 11	22 2 11	22 3 20
						March.			
935 ..	XVII	19	D	,, 5 ..	9	30 15 36	30 15 41	21 15 41	21 15 36
601 ..	IX	21	D	,, 5 ..	6	27 13 24	27 12 40	21 12 40	21 13 24
248 ..	I	22	C	,, 4 ..	4	25 1 40	25 2 11	21 2 11	21 1 40
A.D. 87 ..	XII	23	C	,, 4 ..	2	22 23 28	22 23 9	20 23 9	20 23 28
440 ..	IV	25	C	,, 4 ..	1	19 11 44	19 12 40	20 14 40	20 11 44
774 ..	XV	26	C	,, 4 ..	4	17 9 32	17 9 38	21 9 38	21 9 32
1108 ..	VII	28	C	,, 4 ..	7	14 7 20	14 6 37	21 6 37	21 7 20
1461 ..	XVIII	29	C	,, 4 ..	9	11 19 36	11 20 8	20 20 8	20 19 36
1795 ..	X	1	C	,, 4 ..	11	9 17 24	9 17 6	20 17 6	20 17 24

These are dates on which the hour of new moon approach most nearly to the hour of the vernal equinox. *See* Note, Table A.

Table C.

I now give the dates of full Paschal moon in Gregorian years from A.D. 22 to A.D. 37, and compare the results with Guinness's tables corrected to Gregorian years: —

From Book of Common Prayer, with Sup. Table II.					From Guinness's Tables. Jerusalem Civil Time.		
—	Golden Number.	Cypher from Table II.	Dominical Letter.	Paschal Full Moon.	Vernal Equinox.	Mean New Moon.	—
					March. d. h. m.	d. h. m.	
A.D. 22 ..	IV	23	A	April 2	21 5 34	19 8 51	March.
23 ..	V	23	D	March 22	21 11 23	8 17 40	,,
24 ..	VI	23	B	April 10	20 17 12	26 15 13	,,
25 ..	VII	23	E	March 30	20 23 1	16 0 1	,,
26 ..	VIII	23	C	April 18	21 4 49	3 21 31	April.
27 ..	IX	23	F	,, 7	21 10 38	24 6 23	March.
28 ..	X	23	B	March 27	20 16 27	12 15 11	,,
29 ..	XI	23	G	April 15	20 22 16	31 12 44	,,
30 ..	XII	23	C	,, 4	21 4 5	20 21 33	,,
31 ..	XIII	23	F	March 24	21 9 54	10 6 21	,,
32 ..	XIV	23	D	April 12	20 15 42	28 3 54	,,
33 ..	XV	23	G	,, 1	20 21 31	17 12 42	,,
34 ..	XVI	23	C	March 21	21 3 20	6 21 31	,,
35 ..	XVII	23	A	April 9	21 9 9	25 19 4	,,
36 ..	XVIII	23	D	March 29	20 14 58	14 3 52	,,
37 ..	XIX	23	B	April 17	20 20 47	2 1 25	April.

See Note, Table A.

Supplementary Table II, giving the cypher correction to be used in Table III, Book of Common Prayer, and also the number of days to be added to or deducted from a Gregorian year to make it a Julian year :—

Cypher. (See Table III.)	Gregorian years B.C.	To be added for Julian years.	Cypher. (See Table III.)	Gregorian years B.C.	To be added for Julian years.	Cypher. (See Table III.)	Gregorian years A.D.	To be deducted for Julian years.
4	4401 B	35	14	2001 B	17	—	—	—
5	4301	34	15	1901	16	—	—	—
5	4201	33	16	1801	15	24	200	0
6	4101	32	16	1701	14	25	300	1
6	4001 B	32	16	1601 B	14	25	400 B	1
6	3901	31	17	1501	13	25	500	2
7	3801	30	17	1401	12	26	600	3
7	3701	29	18	1301	11	26	700	4
7	3601 B	29	18	1201 B	11	26	800 B	4
8	3501	28	18	1101	10	27	900	5
9	3401	27	19	1001	9	28	1000	6
9	3301	26	19	901	8	28	1100	7
9	3201 B	26	19	801 B	8	28	1200 B	7
10	3101	25	20	701	7	29	1300	8
10	3001	24	21	601	6	29	1400	9
11	2901	23	21	501	5	0	1500	10
11	2801 B	23	21	401 B	5	0	1600 B	10
12	2701	22	22	301	4	1	1700	11
12	2601	21	23	201	3	1	1800	12
13	2501	20	23	101	2	2	1900	13
13	2401 B	20	23	1 B	2	2	2000 B	13
13	2301	19		A.D.		2	2100	14
14	2201	18	24	100	1	3	2200	15
15	2101	17	24	200	0	4	2300	16

Note.—The letter B denotes the years to be accounted leap years in new style. The corrections for Julian years and for using the cypher for the years B.C. are to be applied for the 100 years *below* and including the number indicated.

The correction for turning Gregorian years into Julian years should be 8 days in 1,040 years, giving $27\frac{2}{3}$ days in 3,600 instead of 27 days, as given in this table according to new style, reckoning from new moon to new moon; but reckoning from vernal equinox to vernal equinox the error in the new style amounts to about a day in 3,600 years instead of $\frac{2}{3}$ day.

THE STANDING STILL OF THE SUN UPON GIBEON.

By Rev. W. F. Birch, M.A.

The notion (Ecclus. xlvi, 4) that there "was one day as long as two" is topographically unnecessary and Biblically gratuitous. Let it be tested.

(1) From Gilgal, by Gibeon to Makkedah (Mem. II) is not quite 50 miles, with an ascent of 3,100 feet, and descent of 2,000 feet. Picked men could easily cover the distance in 24 hours. Joshua went up all night to Gibeon, about 20 miles. By early dawn he had swooped upon the unsuspecting Amorites. These made no stand anywhere (Josh. x, 8), but fled towards Beth-horon, butchered like sheep by the pursuing Israelites. Meanwhile a black mass of clouds was driving up from the sea. As he looked down the famous pass of Beth-horon, the overspreading darkness seemed to Joshua to favour the escape of the fugitives. Under this persuasion he said, "Sun, stand thou still upon Gibeon: and thou, Moon, in the valley of Aijalon." The sun's appearing near Gibeon shows that it was still early. Joshua had no need to ask for *time*—what he wanted was *light*, while the nearing storm presaged a sun going down "while it was yet day" (Jer. xv, 9). Elijah's prayer gathered heaven's blackness; Joshua's voice now fissured it, so that for Israel neither sun nor moon were obscured at all the whole day. The storm, indeed, discharged its crushing hail upon the flying Amorites, and the wheeling clouds poured incessant destruction upon them as far as Azekah; yet Israel remained unscathed, as in Egypt and during the disaster at Nob (*Quarterly Statement*, 1891, p. 314). More time was not needed; for the hardy ancestors of warriors who afterwards fought at Gibeon, pursued to Ammah and came to Hebron at break of day, were well able to cap a forced march of 18 miles by a slaughter spread over 24 miles, and to complete both within 24 hours. Ben-Sirach ought not to decoy us into foolishly making nimble men creep over 24 miles of victorious ground at the rate of one mile, still less of two-thirds of a mile, per hour. Yet this is inevitable if "one day was as long as two."

(2) In the Bible, as elsewhere, apparent movement is described

as real movement, *e.g.*, "the sun went down." Many are familiar with the misleading appearance of the full moon rushing behind a cloud, when really the cloud passes over the moon. Further in the Bible the sun is said "to go down," when it disappears for the day, *e.g.* (Jer. xv, 9), "Her sun is gone down, while it was yet day," and Amos viii, 9, "I will cause the sun to go down at noon, and I will darken the earth in the clear day." This parallelism shows that "going down" simply implies "disappearing for the day." How otherwise could the sun go *down* at *noon?* "Standing still" is apparently the opposite to "going up" (1 Sam. xiv, 9), and "going down" (Josh. x, 13). So in this passage the words, "And the sun stood still and the moon stayed," simply mean, according to the Biblical usage, that, in the tempest, the black clouds never obscured the disk of the sun or the moon; or, more briefly, that the sun, instead of apparently rushing behind the clouds, "stayed in the midst of heaven and hasted not to go down about a whole day." As with the hail and darkness in Egypt, so now the Lord fought for Israel in sending and guiding the storm, for destruction to the Amorites, but for safety and light to Israel, but not by any unnecessary and useless prolongation of one day into two.

"ARCHÆOLOGICAL RESEARCHES IN PALESTINE, 1873–1874," VOL. I.

By the Rev. Canon Dalton, C.M.G.

We have all been reading with very great interest and admiration vol. i of M. Clermont-Ganneau's "Archæological Researches in Palestine in 1873–4,' the most recent and, from some points of view, one of the most valuable and suggestive publications ever issued by the Palestine Exploration Fund, replete as is its every page with scholarly and trustworthy information. There are two minor points referred to in that work on which I should much like to venture to ask his further opinion.

The first regards the large plate opposite p. 144, which represents "a capital of white marble in one of the minarets of the Haram esh-Sherîf at Jerusalem." M. Clermont-Ganneau does "not think that one can see in it anything else than the

Presentation of Jesus in the Temple" (p. 146). Should I be overbold to suggest that perhaps the sculptor intended to represent St. Veronica, with her veil or napkin, coming out of her house to meet our Lord with His cross as He passes by? The head of the chief figure is gone, but the nimbus with the cross within it shows unmistakably that this was the head of our Lord. M. Clermont-Ganneau allows so much, but thinks that the nimbus surrounded His head as a child sitting on His Virgin Mother's right arm. But there appears scarcely room on the sculpture for two heads so close together, His and hers; and no trace of the child's body is manifest. The nimbus, too, looks altogether out of proportion to the size of a child, but quite suitable for that of a man. The head was naturally turned towards the left, so that a portion of the beard would have been in front of the right shoulder. The figure, moreover, is clothed in a chasuble: our Lord but not our Lady is often so depicted. The attitude of the figure seems also that of one "stooping" rather than "sitting" (p. 146): stooping, I imagine, beneath the burden of the cross, the end of which is apparently intended to be represented as protruding above the nimbus. The second figure, which I take to be that of St. Veronica, has "the legs slightly bent, and stretches both arms forward parallel to one another. Over the forearms there hangs a piece of linen or cloth with many folds" (p. 145); this would be her veil or napkin, which she is presenting to, or receiving back with reverence from our Lord, and so holding as not to disturb the impression of His face she recognises thereon. The third figure behind I take to be that of Simon of Cyrene upbearing the greater weight of the cross after Jesus.

The legend of St. Veronica will be conveniently found in "Felix Fabri," vol. i, pp. 443, 444 (Pilgrims' Text Society). The house shown as hers was in the Via Dolorosa, nearer to Calvary than the Prætorium (the Haram Barracks). Simon of Cyrene was reported to have met the procession at the cross roads (where the road into the city from the country on the north crosses the Via Dolorosa as it runs from east to west), in fact, at the stage just before it reached St. Veronica's house. Hence he would be fittingly introduced on this sculpture, if it were one of a series. "Two other capitals (p. 150) placed in the same minaret, show the greatest possible likeness to this one," and M. Clermont-Ganneau thinks they are "repetitions of this same scene of the Presentation."

I am rather inclined to imagine that they represent other two "Stations of the cross." The chief figure would be the same in each, and the group surrounding somewhat similar. The distance of the present position of these capitals in the minaret from the position they may possibly have once occupied in the Via Dolorosa is no greater than from the site which M. Clermont-Ganneau identifies as that of the Chapel of the Presentation, in fact one portion of the Via Dolorosa is nearer. All that he says (pp. 152 to 165) of the Chapel of the Presentation is most interesting and valuable, and is not at all impugned, if these three capitals in the minaret never belonged to it, or if, having belonged to it or the Templum Domini, they represent scenes of the Passion, and not that of the Presentation repeated several times.

My second question regards the Roman inscription near Bettîr, figured on p. 465. It may appear somewhat presumptuous to attempt to form any judgment without having seen the original. But from the plate one would imagine the top portions of the stone to have perished, as the tooled edging runs only on the other three sides. The letter that follows the M in the first line (if one may trust the engraving) is clearly P, there is a space for TI, and then one seems to detect BVS. I think the last four letters on that line are SVIS. The second and third lines contain the names of the Centurions, Martius (with a prænomen and cognomen that are quite indecipherable), and Victor or Victorinus (the rest of whose name has perished). Hence it would appear that these two centurions and vexillaries of the fifth and eleventh legions put in order at their mutual expense this little spring and water-course for the benefit of the flocks and people living on the land that each centurion had been settled upon and occupied conterminous one to the other, and that they recorded the same by the side of the fountain (as pictured on p. 464) in case of any dispute hereafter arising as to whom the water belonged. "A dedication to the Great Gods of Rome and to Victory," as suggested on p. 466, seems rather out of place in such a position, and the letters have to be somewhat tortured to yield the names of the deities required. The first line of the inscription, now destroyed, would contain some such words as "Hoc opus faciendum curaverunt," or "Hunc fontem aperuerunt," either in full or abbreviated form. Be this as it may, the value, both historical and topographical, of the inscription is in no way affected; it shows that vexillaries of the two legions

named were here, though the date with the names of the Emperor and consuls of the year that probably was in the lower two lines has irretrievably perished.

Note by Professor Clermont-Ganneau.

I have read with much interest Canon Dalton's remarks on the capital in the Haram, and on the inscription at Bettîr. They appear to me to deserve serious attention; nevertheless, I feel great hesitation in recognising on this capital the representation of St. Veronica presenting her veil to Christ. One would have expected to find in such a representation remains at least of the cross carried either by Jesus or by Simon the Cyrenian, and I can scarcely believe that the sort of rosette above His head represents the end of one of the branches of this instrument of punishment. However, the original capital, which must still be in existence at Jerusalem, ought to be examined more closely, and it would be a good thing to bestow also a closer study upon the other capitals in the minaret than I am able to afford. Dr. Bliss and Mr. Macalister might do this when opportunity offers, and also have good photographs taken of each of them. That which adds to my doubt is the arrangement of the linen upon the arms of the figure supposed to be St. Veronica. It forms a deep hollow as if meant to contain something. As to the localisation of the legend of St. Veronica and her house, one must not lose sight of the fact that this is of a relatively recent date, in any case subsequent to the Crusades. Perhaps a fresh and more complete examination of the other capitals in the minaret would allow the question to be decided one way or the other. Anyhow, it is a good thing that Canon Dalton's suggestion should be put on record and taken into consideration.

As to the inscription from Bettîr, it is very probable that it refers to some work undertaken in connection with the construction of the watercourse or of the fountain, under the direction of the two centurions, but more probably at the expense of the inhabitants of the place rather than at that of the centurions. I doubt whether the two *vexillationes* would have corresponded to distinct and contiguous properties. I would rather believe in the existence at Bettîr of one *single* Roman garrison formed of two detachments borrowed respectively from the fifth and eleventh legions. In spite of the appearance of the engraving on p. 465

(where the tooled frame on the top part of the stone is represented as wanting), I think that I can remember that the squeeze of which the engraving is a reproduction took in the whole of the field of the *cartouche* as shown on p. 464; and therefore there is no room to suppose that another or first line ever existed that has now disappeared. I will try to find the squeeze and verify this important fact.

THE JAR-HANDLES DISCOVERED BY DR. BLISS.

By the Rev. Professor A. H. Sayce.

The jar-handle discovered at Tell Zakarîya with the figure of a winged beetle shows that Professor Clermont-Ganneau and Colonel Conder were right in their explanation of the symbol. Unfortunately the artistic history of the winged scarab has not yet been studied; the two-winged beetle is found on a scarab of Antef IV, of the eleventh dynasty (Petrie, "Historical Scarabs," 159). The four-winged beetle probably originated in the same age and under the same influences as the four-winged solar disk. One, with the head of Horus, is represented in Layard's "Nineveh and Babylon," p. 240, but it is not stated whether the scarab on which it occurs was found at Nimroud or at Arban; if at Nimroud, it would be older than 606 B.C.

The place-name mentioned by Dr. Bliss (*Quarterly Statement* for January, p. 13) as beginning with the letters *kheth* and *beth*, is Hebron.

The "stamp" (No. 3) discovered at Tell es-Sâfi represents a well-known type of Egyptian scarab of the thirteenth to sixteenth dynasty period. It belongs, therefore, to the Hyksos age, or to the period immediately preceding it.

The seal-cylinder (No. V) is North Syrian. The two figures on either side of the sacred tree are the equivalents of the winged genii of the later Assyrian sculptures.

Dahabia Istar, *February 9th*, 1900.

WOMAN IN THE EAST.

By Philip J. Baldensperger, Esq.

(*Continued from "Quarterly Statement,"* 1899, *p.* 160.)

PART II.

Chapter I.—The Countrywoman.

The countrywoman, or Fallaha, the feminine of Fellah, is best represented in the Bible by Abigail, the wife of the wealthy Nabal, who, like the modern Fellah woman, had her say in the household affairs. Different to the townswoman, who has a home dress, and is always met with out of doors veiled and wrapped in the long white sheet, the Fallaha has the same clothes on in or out of the house—plain blue, sometimes embroidered, with the white cotton shawl over the head, but she is never veiled. The long blue gown reaches to her feet, and is fastened by a girdle. This is generally the only clothing she has on. Her head, according to her wealth, is more or less visibly ornamented with coins, both silver and gold. Many coins are therefore to be found in the Orient with holes near the border, by which they are attached to the head-gear, which itself is plaited into the hair by strips of ribbon, and a silver chain passes under the chin, along which also coins of all dimensions are fixed; below the chin the chain is elongated, and the most valuable coin in the woman's possession terminates this and hangs upon the breast. The whole fortune of a woman is thus continually carried about with her. Above this is worn a long white cotton shawl falling back to the waist framing the face, and leaving a row of coins above the forehead visible; the ends are stuck into the chain, which holds them in place. This every-day shawl is more or less embroidered round the borders and fringed with tiny tassels. On feast days or solemn occasions the shawl is richer, and in most cases of black silk fringed with red tassels. When the woman is at work the wide sleeves are tucked up and crossed behind the head, leaving the arms bare

Shoes are only worn when absolutely necessary, never in or about the village. Stockings are unknown.[1]

The Fallaha gets up at two or three in the morning and grinds the flour in her own hand-mill, without which no Fellah family can exist. Often two grind together, singing their love songs till daylight. If they have more flour than is wanted for the day, it is put in a tanned skin-bag, and hung up in a corner of the room. This grinding and singing have so grown into their habits that none of the sleepers are disturbed by it, but often should sleep overtake the grinder the husband or brother is awakened by the stoppage of the familiar sound. In most cases they have only one room, usually divided into three parts. The darkest part, where straw is kept for the winter, is furnished with big clay receptacles made by the women on the spot, to store away the wheat, barley, lentils, and so on. The other part is divided into the lower or fore-part, to lodge the animals, and the elevated or hinder-part, where the family cooks, eats, sleeps, and sits. Rebecca, as a maiden, reminds one of this Fallaha and the house arrangement, when she says to Eleazar, Genesis xxiv, 25: "We have both straw and provender enough, and room to lodge in." The courtyard is similar to the inside, and may be considered as the summer habitation, for the room has generally no other issue than the door, rendering it intolerable during the hot summer months. A booth is generally made above the elevated part of the court, and visitors are received there; also the whole of the family doings pass outside. The same fireplace as in the inside is to be found. The Fallaha generally uses wood for the fire, the hearth being built on the floor. The room is always full of smoke and the roof black. It is no easy task, therefore, to pass a night in a Fellah house, on a carpet on the floor, with a coarse woollen cushion to lean against and listen to their tales or else tell them news.

Chapter II.—The Household Furniture.

This consists of one or more carpets and straw mats, to spread on the floor during the night, and when visitors come. The carpets are taken away in the day and folded, as well as the cushions and the thick woollen or cotton coverings. All the

[1] The dress of Bethlehem is peculiar to the Christian women of that town. The dress of Central and North Palestine differs in some respects from that of the South, and the costume of Christian women in Nazareth and the North is quite different from that of Bethlehem.—C. R. C.

family lie down in rank and file, covered by two or more coverings. All sleep in one room, till the youngsters grow up and get married, and either build a new house, or, as in most cases, the head of the family adds a new room for the newly married, who thus continue to live in the same court. The next and most indispensable article is the hand-mill already mentioned, a sieve to sift the flour, and another coarse sieve to sift the wheat.

There are also a few kitchen utensils—as earthenware pots in which to cook the food, and a wooden ladle to stir and take it out. Some have a circular board on which they make a kind of small cut vermicelli, and a roller to roll out the dough. Salt is kept in an earthenware jar. Honey and grape treacle, oil and butter may be also in store in earthenware jars for winter. The big clay receptacles are used for cereals, whilst the space below, formed by their being raised on three or four legs, is used much as we use drawers, for keeping various articles in. The top of these receptacles is almost shut, excepting for a small round hole by which the grain is put in after the harvest. The large wooden basin, or *batié*, to make the dough, and the smaller basin, or *hanabé*, very nearly complete the whole of the furniture.

Water is generally brought from the fountain, or cistern, in skin bottles, which the women carry on their backs, and a rope holding this in position passes round the forehead. If, however, they have no skin bottles, known as "*kirby*," they have big earthenware jars, which they carry on their heads. In a corner of the room a still larger jar with very wide opening is found, from which everybody takes out water, generally with a tin cup. Smaller earthenware jugs, painted red on black, are their usual drink receptacles; the water is poured from the spout into the open mouth from the height of a foot or more by inclining the head backwards.

Coffee utensils are not to be found in every family, but generally a whole set belong in partnership to a part of the village. The whole set consists of a coffee-pan of iron, to which is chained a ladle to stir the coffee beans when on the fire, next comes a mortar of wood or of very hard stone, and a pestle, also of wood or stone, in which the coffee is pounded—*a coffee mill is never used.* When the coffee is pounded as fine as possible it is put into a brass coffee jug containing boiling water and boiled. When ready it is served on a brass tray, with tiny cups, holding little more than a tablespoonful.

Every woman possesses a chest, generally painted red, and with thin brass arabesques nailed all around, in which her treasures are hid. The lock has generally a ringing arrangement to warn her should any one try to open it, for, as a rule, she fears her husband most of all. It is locked with a large copper key, which hangs always round her neck, day and night. No wonder she is always vigilant, and has a continual eye on it, for it holds all her fortune, not only in valuables that she may possess, but also every piastre she may earn, which is put away into the secret drawer. If the wealth she may have on her head is too heavy to be carried about all day, it may be exchanged for a lighter head-gear, and put in the box with bracelets, necklaces, and so forth. She most jealously keeps it from her husband; especially when out on errands she fears him, for in case of need he might break open the box and take what he wants, denying having touched anything. She therefore keeps him in total ignorance of what it may contain, in order not to lead him into temptation. It is also very much in her interest to have a husband who, if not altogether poor, at least is not rich, for she well knows that the saying is too true: If a Fellah has money enough, he chooses one of three things—either to go to Mecca, which is very expensive; or else to make some disturbance, which costs a good deal; or to get married a second time, which, besides the expenses, brings her a rival.

The chest also holds her best clothes, strongly perfumed, which she only takes out on feast days.

Chapter III.—Meals.

Meals are served on the ground on a home-made straw tray, round which only the male members of the family squat if any stranger be present, who always partakes of the meal. In case of absence of strangers, the wife or daughters in many cases sit down and partake of the same meal as the others. This is generally served in a small wooden dish, and soft bread placed around, which is dipped into the food by small bits. Spoons as a rule are not used, but the food is taken with the fingers if solid enough, and by dips if too fluid. They have, however, wooden spoons, which they bring forth for distinguished visitors. On account of this method of taking the food the hands are always washed before meals. Early before daybreak the woman leaves the mill to bake the bread. In winter, when it is cold, the dough is prepared in

the evening, and the leaven put in; by daylight it is ready to be carried into the low-oven. This is heated with manure. A cone with an opening at the top is put in a small room, at the bottom of the cone are placed small stones, and a cover of clay like the cone itself is put on. The manure is lighted and left to heat for several hours—sometimes the whole night. When the dough is well leavened it is made into small loaves and laid on the heated stones, where it is baked in from ten minutes to a quarter of an hour. From these stones the bread of the Fellahîn has always little pits below and corresponding elevations on the top. Bread is renewed every day, and sometimes twice a day. The Fellahîn eat very much bread; it forms the most substantial part of the everyday meals. In the Lebanon the bread is generally baked on an iron tray after the dough has been spread out as thin as possible, and the fresh bread is put on the straw tray.

They have usually three meals a day, breakfast, any time between eight o'clock and noon, consisting of bread alone, or olives, oil, eggs, fruit, milk, or butter, as the man may be possessor of olive gardens, vegetables, flocks, and so on.

The dinner is more substantial, consisting, according to time of year and work, of boiled rice, broken wheat, lentils, or lentils and rice, with butter, vegetables, and so forth. Meat with the average Fellah is an exception. This is reserved for feast days.

Supper in many cases is taken instead of dinner, as in harvest time when they are too far from home, or from the hut temporarily put up, where the woman prepares for their wants. In other cases it may be very much like the breakfast.

During the fasting month of Ramadan the most substantial meal is ready by sunset. The family gathers around, and as soon as the priest calls out "God is the Greatest," every man, woman, and child put out their hands and, "naming God," stuff the food as eagerly as possible into their mouths. Meals as a rule are taken hastily and quietly; no talking, or exchanging ideas, or asking how the dish is prepared. Drinking, of course water only, is reserved to the end, and is in most cases a sign of sufficiency. Therefore, in case a stranger may ask for water during the meal it is often refused, as this means ceasing to eat. It is also customary to say "Thank God," which means as much as "I have enough." The hands are now washed outside the room. The second meal in the night of Ramadan is taken early in the morning, soon after midnight, but is a very slight meal. As the Fellahîn go to their work

during daytime the nights are very quiet, save during the meal times. No running about and changing night into day as amongst the townspeople.

Chapter IV.—The Women.

During these nights the small oil lamps with which the rooms are lighted are kept burning, whilst all through the year the light is put out after the meals or evening hours, and is lit again during the morning hours, when the woman grinds. The oil is exclusively to be furnished by the woman, bought from her private earnings. These consist in eggs she may sell (the poultry always are the woman's property) or anything she may have gleaned during the harvest and sold at the next market. She may also have carried things to the market for someone else, for men never carry anything in the country. If they go to the market they either hire a woman or take their own wives or daughters, or else load animals. These earnings all belong to the woman, except it be done for her husband, when she is expected to do it for nothing, although in most cases she may put away a part for herself.

The woman, encouraged by all these small items, is often considered a stranger in the family to a certain degree. If she is energetic she can rule the house and command the husband just as well as any Occidental woman may. She is greatly venerated by her children, but is not inseparably attached to the family of her husband. She never takes his name, and for the slightest offence she can be divorced, and though in this last case she has a right to claim a certain sum of money, lands of her husband can never be given to her. The Fellah considers his property as sacred, and if not absolutely forced to sell, he is ever ready to say like Naboth to Ahab in Kings xxi, 3: "The Lord forbid it me that I should give the inheritance of my fathers unto thee." Although in many cases Occidentals have bought lands from the Fellahîn in Palestine, yet they are ever considered as temporary intruders. Even violation of the women is considered easier for them to bear than this encroachment on their lands. And thus they have always been, whatever confession or religion they belonged to, from the Canaanites of the time of Abraham, or later on, fighting the Israelites, then being converted to Judaism, fighting Greeks and Romans, and as Christians against Mohammedans, and converted to Mohammedanism fighting the

Crusaders.[1] And now in modern times the Canaanite of yore, transformed with very slight changes into the modern Fellah, still represents to the Bible student vividly the same type. Though the general duty of the Fellah woman consists in all that appertains to the household, including storage of wood for firing when it is to be had, or manure for the same purpose in the plains, she may often help her husband, or father, or brother in the labours of the field. This task being the chief occupation of the men, they derive their name from cultivating; Fellah means cultivator. During the ploughing season she carries the food to the field, and if no animals be present may also carry the seed for sowing, break the clods if needs be, seconding her husband in gardening if he possesses watered lands, weeding, and so forth, but only after having hastily done the most necessary work at home. So also in harvest time she has to help cutting the corn, or driving the laden animals to the threshing floor, which may be many miles away, but always doing the easier work just as women do all over the world. It has often been represented, in view of the Fellah woman's servitude and degraded position, both in illustrations and descriptions, that she is yoked alongside with an ass or cow for ploughing, but I most emphatically protest against such fables, which have been seen perhaps in some other part of the world and copied again and again by writers; and even up to this date modern writers unscrupulously have given it as a fact. I dwell on this, as I have been many years amongst the population, and have never seen or heard of a woman being yoked to the plough.[2] Women may sometimes lead the newly-yoked animal to teach it to go in the direction wanted, or force a stubborn horse or mule to

[1] *Religion.*—The Fellahîn have no doubt much of the old Amorite blood in their veins. In North Syria especially they resemble the ancient pictures of Phœnicians, but the stock is mixed with other elements, Arab, Nabathean, and Aramean, through the planting of new colonies by the Assyrians, and through Arab conquest. Only a part of this population has adopted foreign faiths—Jewish or Christian—in any age, and their real beliefs are what they call "the religion of Abraham," including very ancient superstitions. In the twelfth century the Fellahîn remained Moslems, as a rule, as is particularly noted in documents of the time of the Latin Kingdom.—C. R. C.

[2] Though women are not yoked to the plough, yet I have seen a woman pulling at it, side by side with a donkey—in one case when the husband was evidently very poor.—C. R. C.

On this point Dr. Chaplin sends the following note:—"Whilst it is no doubt exceedingly rare for a woman to be harnessed to a plough, I have myself seen *once* on the plain of Sharon a woman dragging a plough side by side with a donkey."

walk straight, and possibly this has been confounded with yoking. At all events the Fellah woman is certainly the busiest woman of the three types, as having her household duties and sharing her husband's work in harvest, but she does not think so little of herself as the townswoman does, and certainly is esteemed by her husband a good deal more than is her sister in town. If the Fellah does not possess any corn land himself, or if the woman be a widow or orphan, she goes to glean behind the reapers, and often she gathers corn enough to last her all through the year if she is diligent, or if some modern Boaz—and the case may often present itself—allows a modern Ruth to go among the sheaves. In some wheat-producing districts, like the plain of Sharon and Philistia, the gleaners are so numerous, even surpassing the reapers in number, that often the owner has to hire a man to drive them back, which is a very arduous task. I have known such guardians of the gleaners declare that they had to lay down their functions as being too sinful, for they had to curse and to swear a good deal more than is decent in view of the blessing sent by God to all.

Chapter V.—Birth.

After birth the midwife is responsible for the child during forty days. Immediately after the birth the father is called in, and before the navel is cut he is to name the child, though in many places they are not particular about the time of naming. The child is rubbed all over with salt, water, and oil; tightly wrapped up so that it cannot move its limbs, and remains thus till it is seven days old. The midwife only then removes all dirty clothes or rags, and again rubs and washes and wraps together for another seven days, and so on, till the fortieth day, when the child is finally washed in warm water, soaped, put in cleaner rags, and handed over to the responsibility of the mother. The babe is then put into a rocking-cradle, which every Fellah woman possesses. Immediately after birth the news is carried to those interested. I will here only copy what I have written in the April, 1894, number of the *Quarterly Statement* of the Palestine Exploration Fund. If it is a boy all relatives assemble in the house on the very day of the birth; a dinner is made for them by the father, and they drop money, every man according to his means, for the benefit of the boy. Of course the money is gathered and appropriated by the parents. When

it is a girl the male relatives may give small sums of money, but are not expected to do so, and the women of the neighbourhood bring torches in the evening and oil-cakes, singing the praise of the parents, and of the bride or bridegroom—as the new-born is styled; they also drop coins for the benefit of the girl, and these are put away and tacked on the child later on. Friends or distant relations also bring a sacrifice, consisting of a lamb or goat, which is killed and eaten by the offerer and his own family and all present.

The first person giving the news of a boy's birth to the father says: "Good news." "Something good, please God," says the father. "What will be my reward?" asks the news bringer. The father, having an inkling of what it may be, promises a certain sum of money, or some object that may please, as a handkerchief, cap, &c., according to his means. Either a son or daughter may be announced by calling the blessing on the bridegroom or bride: "Blessed be the bridegroom or bride." The father answers, if it is a boy: "May God bless you, or give you boys," or: "At your wedding" (rejoice); and if it is a girl he says the same, and may make an offer of the girl, saying: "Upon the choice of your hand." The other may accept, and say: "I have accepted," or decline by saying: "God bless you, Abu so and so." If the girl really is accepted, the betrothal is at once confirmed by bringing a sacrifice, over which the opening Koran chapter is read, and the terms of the marriage conditions settled; if this is not done, the acceptation is not ratified, though people of honour may not take back their word.

Often the new-delivered woman is lying in the room, stowed away in a corner, whilst all the noisy guests squat about in a circle; the room is filled with smoke, and matters of all kinds are gravely discussed, the men smoking their pipes, the women quietly listening to their wise husbands, brothers, or whatever they may be. The traditional coffee is brought forth by the master of the mansion and roasted in a pan on the wood fire in a corner of the room; as there are no chimneys, the smoke either goes out by the door or some small hole or window which the house may happen to have. The coffee beans, slightly brown, are now pounded, always by a man; most generally this honorary task is performed by the eldest male. The coffee is now boiled, and, in two or three tiny cups, is handed round to the assembly by turns, beginning at the eldest or most honoured visitor. When the first two or three have drunk they hand back the cups,

saying: "May this endure" (the coffee drinking). The master answers: "By your voice." The cups are now filled again and given to the next, and so on, till all have partaken. Sometimes the midwife receives her cup too. For as a rule they are neither timid, nor do they hold themselves bound to honour the men more than absolutely necessary. The sacrifice is prepared for the dinner, and in a separate cauldron rice is boiled and put before the assembly. All these dinners are prepared exclusively by men; the women may hand the wood for the fire, but nothing more. The women receive their portion when the men have eaten, if something is left. Notwithstanding this first feast (only for boys) distant relatives or friends bring a lamb or kid as soon as the news is known, but sometimes this may be done a whole year after. Nervousness is unknown by the Fellah woman, and she continues at work till the last moment. Although an exception, I have known a woman carry a big basket of cabbages to Bethlehem, some three miles distant from her village; on the way she was delivered of a boy, without assistance, rolled him into her huge sleeve, and continued her way to the market; having sold her cabbages, she late in the afternoon walked home with the boy in her sleeve, without being troubled in the least. The girl given away as bride may be claimed by the bridegroom as soon as all the money is paid and conditions fulfilled. This may be when the child is six or seven years old, as also it may be many more years, till she is fifteen or more; but no Fellah girl remains unmarried, no matter how ugly or even disfigured she may be. The sum paid may be less or more, but marry she will, this being the only aim in a Fellah girl's life. At the birth it is the *bride* that is blessed, so if she die young it is a bride who has died, and if she be wondered at for remaining long unmarried, no matter: "God guard her, she is a bride."

Mohammedan tradition says (for Moslems, too, believe in all the patriarchs and holy men of our Bible, but believe them to have been Mohammedans):—The prophet Noah had a daughter; a sheikh came and brought his blessing, and Noah answered: "Upon the choice of your hand," and the sheikh accepted. A second sheikh came and did the same, and a third sheikh came and did the same, and Noah, without reflection, promised his daughter to three different sheikhs. When the daughter was of age, the first sheikh came and married her. Then the second sheikh came, and Noah remembered his promise, and in his distress he turned his she-ass into a girl and gave

her in marriage. The third sheikh came, and Noah turned his bitch into a girl and gave her in marriage. After some time sheikh number two came and asked Noah why he had such a stubborn, stupid daughter, whom he has to beat continually, and who eats barley and grass like an ass. So Noah confessed his fault, and told him how he had dealt rashly when he promised his daughter without remembering his first promise. A few days afterwards sheikh number three came and complained to Noah: "How have you brought up your daughter? She is noisy, almost barking at me when I say anything; is fidgety, and, what is still worse, will eat raw meat, and even turn aside to eat carcasses." In great confusion Noah had to apologise for his hasty and careless promise, and owned that, being held by his promise, he had to change his bitch into woman. But up to this day three kinds of women may be distinguished: those with patches on their knees (which, be it said in passing, as regards the cause attributed, is very rare), who are descendants of the human daughter, the patches being there in consequence of the number of prayers said; those with patches on the back, from the stripes they receive: these are descendants of the she-ass daughter; and those with patches on the breast, from continual rubbing and scratching dog-fashion: they are descendants of the bitch daughter.

Chapter VI.—Marriage.

Marriage is always preceded by the betrothal, which, as already stated, may be concluded at the birth. A price is fixed between the father of the bride and the father of the bridegroom; the mother, as a rule, has no word in the choice, but she influences her husband, and may even show tender feelings to her future son-in-law. In fact, when the betrothal is concluded, the bridegrooms are seen very much with the future mothers-in-law, herein wholly differing from the secluded townswomen. I have even observed to some degree wooing, though indirectly, and in many cases it has led to nothing, as it hardly ever depends on the inclination of the young people. Again, a boy or a girl may be in love with someone, but no further notice is taken if some nearer of kin be fit to marry. Cousins have the first right to each other; sometimes they may pay less than should they be strangers, but in most cases the sum is as large, and in this case is spent again amongst the members of the family, the father always assuming to himself the lion's share. The price may vary from a

thousand to many thousands of piastres (a dollar is about thirty piastres), so something near forty dollars is very much the lowest price for a girl, but in this case she must be a cousin. In all other cases not less than a hundred dollars is the price first paid. The betrothal is concluded by paying a certain amount and making a sacrifice of a lamb or goat, and reading the opening chapter of the Koran. As often as the bridegroom's father can do it, he pays a sum to the bride's father till the whole amount is paid. Ten or more years may thus pass in paying small sums; various causes—failure, poverty—may hinder anything being paid for many years, and as long as the last piastre remains unpaid the betrothal continues.

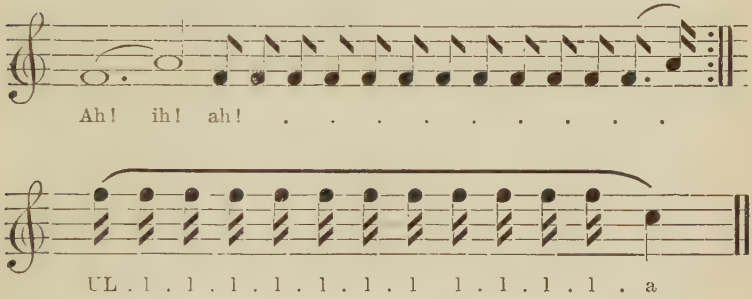
Such relatives as may lawfully marry are, as above stated, preferred to any stranger, no matter how wealthy he may be. These are considered unlawful:—The mother, sister, aunt (only father's sister), brother's or sister's daughter, wife's sister (the wife being alive and still the wife, for in a divorce case he may take the sister); neither may a man marry a mother and daughter at the same time. For the woman it is the same as for the other sex, except that she can never have two husbands.

When all the money which the father has to receive is paid, the bride receives a part from her father, but as little as possible. The bridegroom has to bring bracelets of silver, rings, ear or nose rings, always according to his wealth; the number is optional; a bride may receive four or more bracelets, a dozen or more rings —generally very cheap silver rings with a square stone, red, brown, or blue. Besides these ornaments, clothes, consisting of a many-coloured silk gown, silken girdle, and head cloth. Often he has to buy one for the mother or sister. Many male relatives also claim their portions, usually in the form of a silken gown. This custom we find repeatedly mentioned in the Bible history. Joseph gave changes of garments to his brethren; Gehazi, servant of Elisha, ran after Naaman the Syrian, after his being healed from leprosy, to beg for garments; and at a wedding we find Samson, in Judges xiv, 12–20, promising changes of garments if they guess his riddle.

Eight days before the wedding, usually from the first quarter to full moon, invitations are sent round verbally, and the festivities begin. Coffee is made and handed round, water-pipes or *narghilehs* are handed to the smokers, the assembly gathering, if possible, on the flat housetop, the women on one side and the men on the other, each having their songs and dances separate.

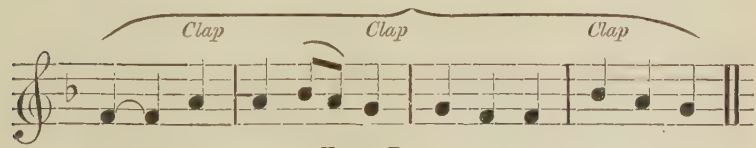
The opening songs are begun by the women. One generally sings four lines, slightly touching her mouth and taking the hand away whilst singing; then the ululation follows, and another woman says what she knows, always in the same four lines and in the same tune:—

Four times repeated, with different words.

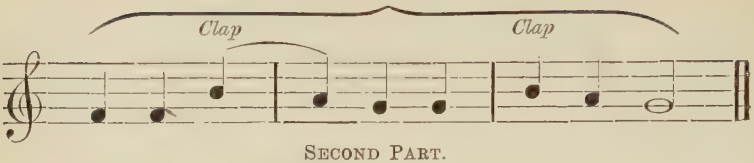


The ululation, so characteristic of Orientals, can be given in something like the above notes; it is, in fact, one long note, with the tongue intervening whilst the sound proceeds. This is invariably the same by Townswomen, among Fellahas and Bedaween, and the most remarkable feature is that the words are alike, that is, they are not adapted to country or town, but more generally to the Bedaween life, and prove that the Arabs of Palestine at least were always influenced by the conquerors of Arabia, who came as Bedaween warriors. Many, if not all, of their songs are mingled with love and war, and weapons.

The men, in a melancholy way, have their all-in-a-row dance, which continues many hours during the night. Five men or more dance or simply lean backwards and forwards, right and left, without losing contact with each other. A leader facing them with a sword, pistol, or club, or only a handkerchief in his hand, sings before them whatever he may please; half of the dancers accompany him in the first line, and half in the second line. Every third note is accompanied by a clap, in which all



First Part.



SECOND PART.

join at once, the leader reproving and encouraging them all the time. He also shows them how to lean, when to bow, and they follow his movements as minutely as possible. After having repeated the same words six or more times, the leader passes to a new verse, now hardly bowing, now almost reaching the ground. When he does this, he produces guttural tones, *kh-kh-kh*—the same that are used to make a camel kneel down. The women, as seen above, have a merrier tone and livelier dance. One or two dance in the middle of a circle, the whole of the dancers whirling round, now jumping with both feet at once and clapping hands, now joining each other's hands and whirling round. The singer in the middle, armed with a naked sword or pistol or handkerchief, which she swings above her head as she sings a line, the others repeating after her, something as follows :—

We are the fair girls like opening roses,
He is favoured by his God who gathers and smells,
He is blind and lame who dark ones chooses,
Take a white one, thus your joy always tells.

Oh goodly thy rings sound, and thou wilt be mine,
The whiteness of thy breasts as snow doth shine,
The horses are saddled, the men armed with the sword,
The daughter of the liberal is asked for the Son of the Lord.

Such and other songs continue, with occasional firing of guns and drinking of coffee, every evening till the wedding day. The girls take a good deal of liberty, and sing the praises of those they may happen to love, and though it is only here that courting is somewhat carried on, platonic-love marriages are the exception. A girl may be asked by her mother or father if such and such a person would be to her taste, but not as a rule. Flirting, too, may be noticed, but the men are so strict about the reputation of their daughters or wives, that not even the legitimate bridegroom may be allowed to be alone with his bride, and should any serious consequences ensue, death alone can expiate. Girls more often are punished than men, as nothing can prove his guilt if the man deny.

When a woman or girl is proved to have had illegitimate intercourse with any man she is secretly condemned to death by the family council, and the sentence is executed as soon and as quietly as possible; in the first place not to scare the woman, and in the second place to be ready for any denial if the government should try to intervene. Several women whom I know of had failed, and the punishment had been accomplished so secretly that it was not for several months afterwards that I was aware of what had happened. A married woman whose husband was in the army for several years was warned by her brother-in-law that she had to die. It is stated that she calmly awaited her death. Taken to a far-away cave in the mountains, she was simply shot and thrown into the deep recesses of that cave; whilst the executioner, who, as was stated, was the guilty person himself, coolly came and announced the death to the two minor children. The elder daughter, who had been brought up in a German mission school, went back to her native village able to read and write German and Arabic and make different kinds of needlework, but very soon became as ignorant as if she had never spent seven or eight years in school. Again she was reclaimed by French sisters, became a Roman Catholic for two years, and then returned once more to her village to be married to her cousin as a Mohammedan. Neither the Protestant nor the Roman Catholic education had impressed anything on her mind. She was neither a good Christian nor a good Mohammedan, unfit for both town and country. When I last heard of her, she was a servant-girl in Jerusalem, having left her husband in the country. Although it cannot be said that all are of this kind, yet in some way the education of the schools and orphanages is adapted, as it were, neither to the manners and customs nor to the difference in religion. For a girl brought up almost as an European, to be sent back amongst her ignorant and poor relatives, with nothing but her education and clothes, altogether different to those of her own people, can have no good effect, and the time, trouble, and expense thus spent are a loss.

The wedding day finally arrives. All the women have put on their best clothes and gather in the house of the bride, hands and nails dyed red with henna, their eyes painted black with *kohl*. The bride is attired in her best, laden with all her ornaments, consisting chiefly of silver bracelets, silver rings, the chain for the head-gear, and the head-gear laden with her entire fortune; over her clothing a red silk gown is thrown, and a thick

veil covers her face according to the great division to which they belong—the red veil for the Kése, and a red and white veil for the Yeméni. This division originated in Arabia among the northern and southern tribes, and is now carried on traditionally. Over her head is a crown with four upright black ostrich feathers. The veil being impenetrable, she is led out of the house and put on a camel, loaded with the bedding she receives from her father's house; it kneels down to receive the bride. The bedding she thus receives consists of one or more thick bed coverings made of common print in very bright colours, filled with wool and quilted together, several wool cushions, and a thick woollen carpet. The camel is now led towards the house of the bridegroom by some male relative, followed by all relatives and those invited—first the men, talking about any matter, then the women singing. They always take the longest way possible towards her bridegroom, and if some open space be found about the village, all such as have horses go there, galloping round the bride, firing above her as often as possible. A group of young men gather round a musician having a double-barrelled flute, the Neié, playing monotonous airs, whilst the men clap their hands at regular intervals, and closely follow the bride. If the bride is destined to a neighbouring village, the men of both sides are well armed, and ready to fight before giving over the bride; more or less bloody battles often occur, for everyone claims a share from the bridegroom, and if he be not as well armed as his adversaries, for they consider each other as such, he is obliged to pay according to weakness or wealth.[1]

The uncles, cousins, brothers, come first to claim either a red silk gown or a sum of money; next come the youths, who want a lamb or goat, known as the "Lads' sacrifice"; and finally the leader of the camel carrying the bride, who, too, receives a dollar or two. When the procession has arrived at its destination, the camel is made to kneel down, and the sword which the bride held in her hand is now taken away and handed to the bridegroom awaiting at the house door. A jug of water is now placed on her head and she tries to enter without letting her bridegroom

[1] *Marrying Out.*—That the peasantry mostly marry within the village is proved by the likeness to one another of the majority in one village, and the distinction between the types of neighbouring villages. The fight for the bride, if marrying out into another village, would be considered by scholars as survival of "marriage by capture"; but this theory is much overdone, and the moneyed interests explain the contest sufficiently.—C. R. C.

touch the jug, whilst he tries to throw it down with the sword. The jug represents complete submission, and her avoiding the breaking is a foreboding of her avoiding to obey blindly. She now steps into the house without touching the lintel and calling on the "Name of God" to prevent the Jân living there taking hold of her. Whatever she may have received or what she may own is carried by women in the procession and put into the house. The veil is now taken off her face, and her face is embellished with gold and silver paper stuck all over it. The sleeves of the bride and bridegroom are now tied together, whilst one sleeve of the bride is spread out across her like a sack.[1] The invited all pass and congratulate the new pair, at the same time pressing a coin to the forehead of the bride, and letting it go to fall into the sleeve below, saying: "This is in token of friendship to you or to so and so." The female relatives' keen eyes always detect the value of the coin thus dropped and sing the praises of the giver.

Whilst this is going on the men assemble and put up a shooting mark at a distance of from 60 to 100 paces; he who hits the mark is lauded in songs of praise by the women.

The religious part of the ceremony has passed unperceived to the uninitiated. During the procession, whilst some were galloping, firing, or disputing their portion, the mollah and bridegroom and nearest male relative of the bride have gone aside, so far away from indiscreet ears that nothing may be heard. In a low voice the mollah asks the bridegroom if he accepts so and so to be his female, and then, turning to the male representative of the bride, asks if she accepts so and so to be her male; when both have assented, they lay their hands in each other's, and the mollah says the opening chapter of the Koran and the two are legitimate man and wife. This mysterious sort of wedding is meant to avoid sorcerers or such as may be supposed to have a bad influence or do any mischief. The folding of hands is avoided by everybody, as it may hold fast future happiness; should a knot be tied fast during the ceremony, unless the person who tied the knot undoes it no felicity can exist between the couple. There are supposed to be different ways to remove the difficulty, invented, it is useless to say, by cupidity, for it always costs something to find out the real source of the mischief.

Meanwhile some men are busy killing and cooking the lambs

[1] *Tying Clothes.*—The custom of tying the clothes of bride and bridegroom together is very ancient, and found all over the world. The symbolism is clear.—C. R. C.

or goats—they have no special butchers, but every good and liberal man must be a butcher by experience. The meat is cut up into small pieces and put in water in large kettles and set on the fire; other cauldrons with rice are set on, the women's only work being to hand wood and bake the bread. The cooking takes from two to three hours. When it is ready the rice is piled upon the wooden dish or dishes according to the number of the guests, and pieces of meat put on the rice. Six to twelve men now squat round each dish, and having called "on the Name of God," with their hands roll huge balls of rice and shove them into their mouths as fast as possible. In many places the feast-giver distributes the pieces of meat to the guests, beginning with the hip-bone, and handing it over to the most esteemed guest, the next hip-bone to the second, then the breast, the thigh, the leg, and shoulder, and lastly the forearm, which must be broken and with an additional piece of meat handed to someone. If this forearm is given unbroken it is considered a great offence, and susceptible guests may leave the feast. So also care must be taken as to who is ranked first, and therefore in many cases to get out of the dilemma the feast-giver does not distribute any pieces but leaves the distribution to the guests themselves. It is considered as the worst offence to give the last rib with the cartilage adhering to it. The guests never gnaw the meat, but tear it off and eat it, and hand the remainder to someone belonging to the house, as it is not considered polite to eat all.

But during all this part of the feast the women are almost ignored, and only receive the remaining food. The head, feet, and interior parts are never put before the guests, but are always put away by the feast-giver's family, and eaten in the family circle next day. When a man has eaten enough, he says "Thank God"! and asks for water, which is only handed to him after he has been begged to continue eating. When he has drunk, he again says "Thank God"! and anyone present, sometimes all present, everyone in turn, tells him: "Be it wholesome"; and to each one he answers: "May God give you relish"! or something to that effect. Soap is now handed round, and a boy pours water on each one's hands; towels are unknown, each one wipes his hands, as it pleases him, on his mantle or handkerchief. After this coffee again is handed round and the guests disperse, each one thanking the owner of the house by saying: "Thanks to thee, house-owner," or "Thanks to the father of Ehmad," or as the eldest son may happen to be called; whilst

the feast-giver, apologising for the nothingness of his feast, says: "Two healths and strength to your body, this is but one of my duties"; the guest again says: "May God give you plenty of boys," and so on.

On the days preceding the wedding a bard is often invited, and through long hours of the night, sometimes till morning, he sings to his one-string fiddle romances of war and love, and receives four or more dollars for such a night's entertainment. Riddles as at Samson's wedding are put forth, whilst the tobacco bag is handed to the smokers. The new-married couple are now left to themselves, but sometimes the female relatives of the bride remain a few days in charge of the bride's property and see if everything goes on square and fair, especially if the bride be from another village. The bride will not take off her shoes till the bridegroom has bought this favour, by paying a dollar or more.

In case of a widow's marriage, many ceremonies due only to maidens are omitted. A widow is not taken on camel-back, nor is she veiled; dancing should also be omitted, out of respect for the deceased husband; the dowry is generally less, and the festivities very short. In many cases a simple family invitation, a few hours' chanting by the women, and all is done.

Second marriages are frequent, and if the bride be a maiden, the wedding ceremonies are the same as if she was the first wife. As all over the world, the women never agree for many days; the different wives are generally adversaries, as Peninnah and Hannah, Elkanah's wives, were (1 Sam. i, 6). Therefore, two persons who agree very badly are called "like second wives"; the name they have for the wives to each other is most near to the expression "antagonist." Yet again another proverb says: "It is written on Heaven's gate, never a mother-in-law loves her daughter-in-law."

Mohammed provided for the peace of the family, where two wives exist, by keeping each one in a separate house; where the man is wealthy enough to do so, the rule is followed, but in many cases it is impossible, and as a result such a house is cursed with eternal strife. The really wise therefore abstain from second marriages. The causes why second marriages occur are very numerous, amongst which can be named barrenness of one woman, or if she has only daughters, and so forth. Yet here the Fellah woman can influence her husband, either by paying him all possible attention and behaving towards him in a really loving way, or else, if this be not efficacious, by threatening to abandon

his house. This threat may be effectual for ever, or at least for a time.

If the husband is not strongly influenced by his own male relatives, or if his wife has got him so far under her control, he will at times be consoled by the belief that it is thus God's will; for should God want to give him sons he might have such without resorting to a second marriage, and thus avoid the expenses and the strife which he himself also fears. Also, he risks having girls again, and therefore the greater number of Fellahîn have only one wife, and are generally happy thus.

(*To be continued.*)

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NOTES AND NEWS.

In Memoriam.

On the 28th May Sir George Grove, to whom the foundation of the Palestine Exploration Fund is due, passed away quietly, after a long illness, at his house in Lower Sydenham. He was born on the 13th August, 1820, and, after receiving his education at the Clapham Grammar School, was trained to be a Civil Engineer. When only 21 he was entrusted with the erection, at Morant Point, Jamaica, of the first cast-iron lighthouse ever built; and in 1845 he erected a similar lighthouse at Gibbs Hill, Bermuda. During 1847–49 he was employed on the staff of Mr. Robert Stephenson, who was then engaged on the construction of the great tubular bridge across the Menai Straits; and he had gained a reputation as an engineer when, in 1849, he succeeded Mr. Scott Russell as Secretary of the Society of Arts.

In 1852 he became Secretary to the Crystal Palace Company —a position which he held for 21 years. It was during this period that he wrote his remarkable articles in Smith's "Dictionary of the Bible," and established his reputation as a musical critic by his masterly analyses of classical orchestral music for the famous Saturday concerts at the Crystal Palace. Sir G. Grove was editor of "Macmillan's Magazine" from 1868 to 1883, and for Messrs. Macmillan and Co. he edited the "Dictionary of Music and Musicians"—a monumental work of great erudition

to which he contributed articles on Beethoven, Mendelssohn, and Schubert. In 1882 he was appointed Director of the College of Music, a post from which he retired in 1894, after having contributed, more than any other man, to make the College a success. From 1891 to 1893 he was President of the College of Organists, and amongst the many honours he received were the C.B., Knighthood, and the Cross of the Saxe-Coburg-Gotha Order of Merit for Art and Science. He was also an Honorary D.C.L. of Durham, and an Honorary LL.D. of Glasgow.

Amongst Sir George Grove's many contributions to literature none are more striking than the articles which he wrote for the "Dictionary of the Bible." To qualify himself for the task of writing them he learnt Hebrew and visited Palestine, whence he returned full of enthusiasm for the work that he had taken in hand. His geographical and topographical articles embodied all that was known when he wrote, and their general accuracy cannot be sufficiently admired. In after years, when the Fund had completed its great survey of Western Palestine, although there was much to add, there was little to alter. His miscellaneous articles are written with equal care, and that on Elijah is of special excellence. Whilst contributing these articles to the "Dictionary," Sir G. Grove was helping Dean Stanley to bring out "Sinai and Palestine," and to him we owe its valuable appendix of Hebrew topographical terms. Between the two men there was the warmest friendship; and the Dean was ever ready to acknowledge the services rendered to him by his friend, whom he appointed his literary executor.

Sir G. Grove, during his tour in Palestine, was much impressed by the close agreement between the natural features of some of the localities he visited, and the allusions to them in the Bible; and he greatly felt the want of accurate maps of the districts which he was unable to examine. At one period he had as his assistant, at the Crystal Palace, the late Mr. James Fergusson, who was deeply interested in the topography of Jerusalem, and the possibility of carrying out surveys and scientific researches in Palestine and Jerusalem was frequently discussed. The first opening came when Miss (now Lady) Burdett-Coutts wished to supply Jerusalem with water, and it was decided, as a preliminary measure, to make an accurate survey of the city. Contrary to

general expectation, the survey was successfully completed without the slightest interference by the Turkish officials, or the Moslem population. The success of the survey, some discoveries made during its progress, and an acrimonious controversy respecting the sites of the Holy places, aroused general interest and gave an opportunity which Sir G. Grove was quick to seize. He determined to raise funds for the scientific exploration of Palestine, and to enlist the sympathies of his many friends in the enterprise. No one could resist his enthusiasm. A public meeting, in 1865, gave birth to the Palestine Exploration Fund, and a strong committee, with Sir G. Grove as Honorary Secretary, was formed to carry out the objects which he had so much at heart, and for which the Fund was founded. For several years Sir George acted as Honorary Secretary jointly with the late Rev. F. W. Holland, but the absorbing nature of his other duties at last compelled him to resign. He never, however, lost his interest in the active work of the Fund, and to the end remained a member of the General Committee.

I first met Sir George Grove in 1864, before leaving England to carry out the survey of Jerusalem, and have ever since regarded him as a warm personal friend whose friendship I highly valued. His was a most attractive personality. A kinder, better man never lived. I cannot recall an instance of his having said an unkind word of anyone. He was always ready to encourage and help younger men, and to show his sympathy with every good work. Those who knew him well can never forget his earnestness, his enthusiasm, his brilliant conversational powers, his literary activity, his extraordinary industry, his simplicity of character, his unstinted charity, and his intense love of the Bible. As one of his friends has well said, "Such characters are not too common; we feel that we can ill spare them from among us."

C. W. W.

✠

The Annual Meeting of the General Committee will be held at the Office of the Fund, 38 Conduit Street, on Tuesday, July 17th, at 4 P.M.

The excavations were resumed by Dr. Bliss at Tell ej-Judeideh on Monday, March 19th, and on June 5th the party removed to Tell Sandahannah and commenced work there.

Dr. Schick reports the following items of news from Jerusalem:—

The Jewish community have purchased a piece of ground west of the city and commenced building upon it a house for a Library and Museum of objects connected with the Holy Land.

A steamboat, 25 metres long, for the Dead Sea has been landed at Jaffa and conveyed on a truck drawn by mules to Jerusalem and Jericho. It does not seem to have been floated at the time Dr. Schick wrote.

The recent visit of the German Emperor to Palestine naturally stimulated the interest which Germans have long taken in the country. One outcome of this has been the establishment of a German Post Office in Jerusalem, two officials having been sent from Berlin for the purpose.

In consequence of the prevalence of disease (plague?) in Egypt, quarantine has again been established, and much irregularity and confusion in connection with the mails have arisen.

It is said that an order has been issued by the Sultan for a line of telegraph to be erected between Es Salt (beyond Jordan) and Mecca, and that the railway is to be continued from Mezairib to Akaba and Mecca. The work is to be done by soldiers.

There is a proposal to construct cisterns in the castle ditch and over them shops. Thus old Jerusalem is gradually being lost and modern buildings taking its place.

Dr. Schick reports also the following changes in the surface around Jerusalem:—

The ash heaps north of the city, so often mentioned in books on Jerusalem, will now be looked for in vain. The material of which they were composed has been taken away for building purposes.

The great mass of made earth in the Muristan, which formed an elevated terrace and was ploughed every year, has also been removed in great part, and having been carried outside the Jaffa Gate has nearly filled up the valley there.

The earth at the Austrian Hospice, which formed a hill, pleasantly green in spring, has been taken away and thrown outside the Damascus Gate, whilst the *débris* from the Church of St. Ann, having been deposited outside St. Stephen's Gate, has formed a hill where formerly there was a depression.

The Dominican Brethren in building their new Church and Convent north-west of Jerusalem and putting the ground into order removed much earth and transported it on a railway eastwards, where they formed with it a hill on the outskirts of their property.

"In future," Dr. Schick writes, "when other generations have forgotten, or do not know, the origin of these hills, antiquarians will suppose that remains of some ancient buildings are hidden there, or perhaps some part of the fortifications of the ancient city. Reflecting on the changes of surface which have taken place in my lifetime, one learns to be cautious in judging of ancient Jerusalem from what one sees to-day, as so many topographers do. The 'ash-heaps' were formerly spoken of as the ashes from the altar sacrifices of the Temple, whereas they were nothing more than unused stuff from soap works." [1]

The extensive clearance of earth from the Muristan has brought to light a series of vaults, partly filled with water, and other remains of ancient buildings, a full account of which, it is hoped, may be given in the next number of the *Quarterly Statement*. The stones of an arch have figures in relief upon them, one being that of a kneeling man, with bow and arrow, and behind him an animal like a lion. Dr. Schick says that he and Mr. Hanauer think the signs of the Zodiac were represented, as on the arch at the northern entrance to the Church of St. Mary, which is now in possession of the Germans.

[1] They were composed of the earthy matter left after the lixiviation of the *kily*, قلي, brought by the Arabs from beyond Jordan for making soap. Bones, earth, stones, and other rubbish became mixed with the mass as the heaps grew.

Opposite the "Tombs of the Kings" and the new buildings of the Anglican Bishop two rock-hewn graves have been found, similar to those described by Sir C. Wilson in the "Ordnance Survey of Jerusalem," p. 70, and shown on Plate XXVI, No. 7.

Mr. F. B. Welch, of the British School of Archæology at Athens, who recently visited the Holy Land, was requested by the Executive Committee to examine and report upon the various types of pottery found during the excavations made by the Fund, and his report will appear in the next *Quarterly Statement*. This important paper will be of great value to all engaged in the study of Palestine archæology.

A number of moulds of the various objects found in the excavations have been received at the office of the Fund, consisting of inscribed weights, jar-handles, scarabs, &c. They can be seen, and casts of several can be obtained, on application to Mr. Armstrong.

The concluding volume of Professor Ganneau's "Archæological Researches in Jerusalem and its Neighbourhood" has been published and issued to subscribers. This completes the set of four vols. as advertised under the title "Survey of Palestine." There are only ten sets left of the first 250 copies of this valuable work. Those who wish to secure a set at £7 7*s*. before the price is raised should fill up the form and send it to the Secretary of the Fund.

In order to make up complete sets of the "Quarterly Statement," the Committee will be very glad to receive any of the back numbers.

Dr. Bliss's detailed account of his three years' work at Jerusalem, published as a separate volume, with the title "Excavations at Jerusalem, 1894–1897," and copiously illustrated with maps and plans, may be procured at the office of the Fund. Price to subscribers to the work of the Fund, 8*s*. 6*d*., post free.

The "Flora of Syria, Palestine, and Sinai," by the Rev. George E. Post, M.D., Beirût, Syria, containing descriptions of all the Phaenogams and Acrogens of the region, and illustrated by 441 woodcuts, may be had at the office of the Fund, price 21*s*.

The income of the Society from March 24th, 1900, to June 23rd, 1900, was—from Annual Subscriptions and Donations, including Local Societies, £301 7*s.* 0*d.*; from Lectures, £2 0*s.* 0*d.*; from sales of publications, &c., £144 5*s.* 1*d.*; total, £447 12*s.* 1*d.* The expenditure during the same period was £656 1*s.* 11*d.* On June 23rd the balance in the Bank was £280 14*s.* 4*d.*

Subscribers in U.S.A. to the work of the Fund will please note that they can procure copies of any of the publications from the Rev. Professor Theo. F. Wright, Honorary General Secretary to the Fund, 42, Quincy Street, Cambridge, Mass.

The following have kindly consented to act as Honorary Local Secretaries :—

The Rev. H. Lloyd Russell, The Vicarage, Chislehurst.

The Rev. E. H. Lewis Crosby, B.D., 36, Rutland Square, Dublin, in place of the Rev. Rowland Scriven, resigned.

Monsieur and Madame Hyacinthe Loyson, 29, Boulevard d'Inkerman, Parc de Neuilly, Paris.

The price of a complete set of the translations published by the Palestine Pilgrims' Text Society, in 13 volumes, with general index, bound in cloth, is £10 10*s.* A catalogue describing the contents of each volume can be had on application to the Secretary, 38 Conduit Street.

The Museum at the office of the Fund, 38 Conduit Street (a few doors from Bond Street), is open to visitors every week-day from 10 o'clock till 5, except Saturdays, when it is closed at 2 p.m.

It may be well to mention that plans and photographs alluded to in the reports from Jerusalem and elsewhere cannot all be published, but all are preserved in the office of the Fund, where they may be seen by subscribers.

While desiring to give publicity to proposed identifications and other theories advanced by officers of the Fund and contributors to the pages of the *Quarterly Statement*, the Committee wish it to be distinctly understood that by publishing them in the *Quarterly Statement* they neither sanction nor adopt them.

Tourists are cordially invited to visit the Loan Collection of "Antiques" in the Jerusalem Association Room of the Palestine Exploration Fund, opposite the Tower of David, Jerusalem. Hours: 8 to 12, and 2 to 6. Maps of Palestine and Palestine Exploration Fund publications are kept for sale.

Photographs of Dr. Schick's models (1) of the Temple of Solomon, (2) of the Herodian Temple, (3) of the Haram Area during the Christian occupation of Jerusalem, and (4) of the Haram Area as it is at present, have been received at the office of the Fund. Sets of these photographs, with an explanation by Dr. Schick, can be purchased by applying to the Secretary, 38 Conduit Street, W.

Branch Associations of the Bible Society, all Sunday Schools within the Sunday School Institute, the Sunday School Union, and the Wesleyan Sunday School Institute, will please observe that by a special Resolution of the Committee they will henceforth be treated as subscribers and be allowed to purchase the books and maps (by application only to the Secretary) at reduced price.

The Committee will be glad to receive donations of Books to the Library of the Fund, which already contains many works of great value relating to Palestine and other Bible Lands. A catalogue of Books in the Library will be found in the July *Quarterly Statement*, 1893.

The Committee acknowledge with thanks the following :—

"Recueil d'Archéologie Orientale." Publié par Professor Ch. Clermont-Ganneau. Tome IV, Livraison 5, Avril, 1900. *Sommaire :*—§ 9. Les trois Karak de Syrie (suite et fin). § 10. Le lieu de la lapidation de Saint Étienne. § 11. La voie romaine de Palmyre à Risapha. § 12. Inscriptions grecques de Mésopotamie. § 13. Inscriptions grecques de Palestine et de Syrie (à suivre).

"Palestine and Her Critics." By Herbert Bentwich, LL.B. From the Author.

"Reisebericht." By Professor Dr. R. Brünnow. From the Author.

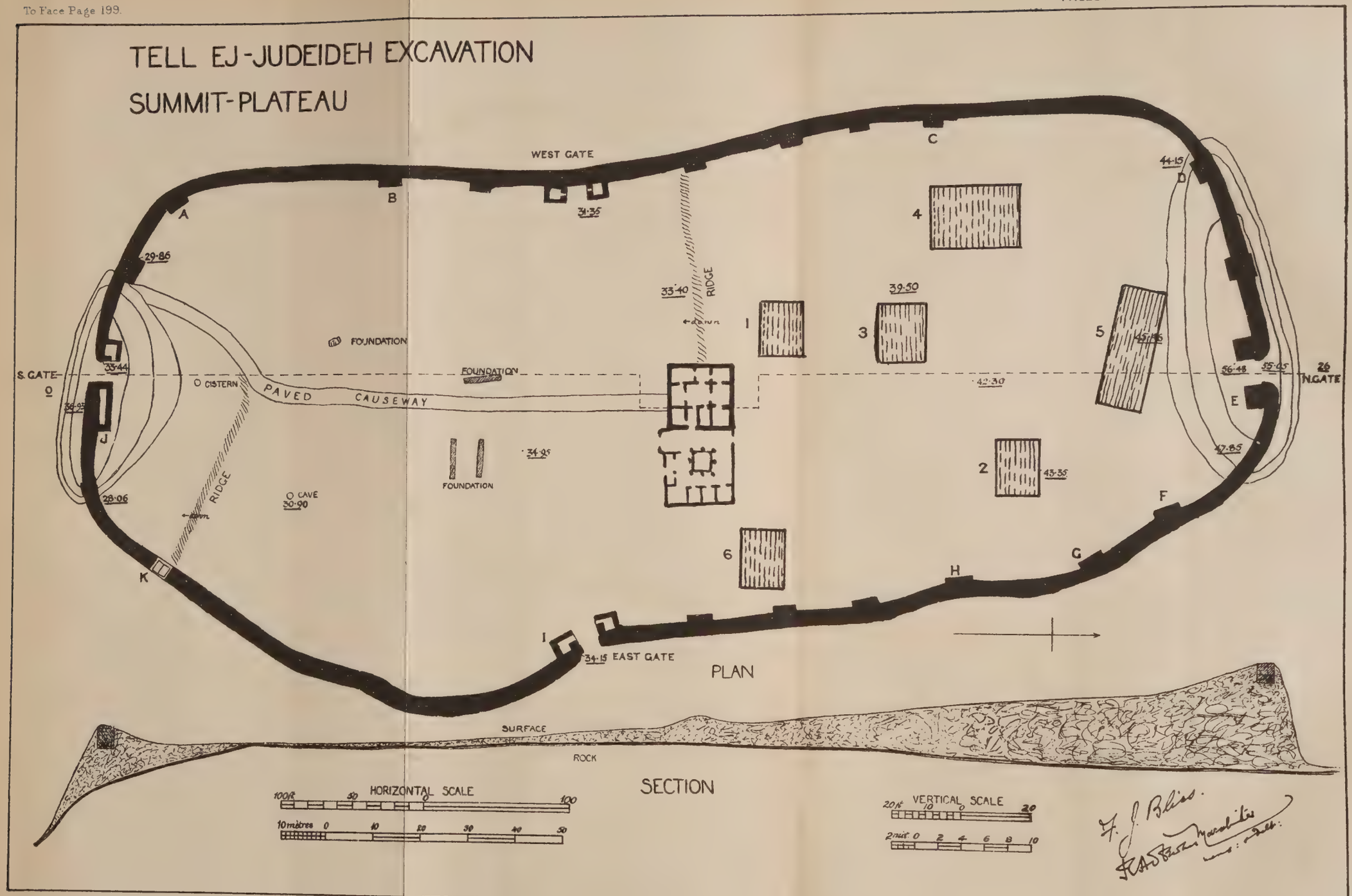
For list of authorised lecturers and their subjects, *see* January *Quarterly Statement*, p. 5.

ERRATA.

Quarterly Statement, April—List of Subscriptions.

For "Rev. John West" *read* "Rev. James Went."
„ "Miss F. M. Peard" „ "Miss C. M. Peard."

1898, p. 162, line 39—*For* "Wescott" *read* "Westcott."
1899, p. 275, line 9—*For* "20" *read* "14" *and for* "aside" *read* "a side."
1899, p. 276, line 21—*For* "40 or 38" *read* "28."
1899, p. 276, line 23—*For* "20 or 19" *read* "14."



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SECOND REPORT ON THE EXCAVATIONS AT TELL EJ-JUDEIDEH.

By F. J. Bliss, Ph.D.

Excavations were resumed at this site on Monday, March 19th, and the work has been closed to-day (June 1st), when the Tell shows the same level top that it had on the day operations began. In the meantime some 125,000 cubic feet of earth and stones have been piled up on the surface, and the extensive remains of a Roman villa have been exposed to view. The covering in of excavations is one of the penalties that have to be paid when diggings are made on arable land. Four days have been lost to the excavations—two on account of rain, and two on account of the Moslem Feast. The health of the party has been better than during any previous season. Cool days have been in the majority, and on May 29th it rained for two or three hours, quite exceptionally for this time of year

In the April *Quarterly* was published a plan of that part of the summit of the Tell which is enclosed by the late city wall. This plan is now repeated,[1] with additions showing the work of the present season. Along the north and south axis of the Tell the rock is practically level. In the centre of the town may be seen the plan of a villa. To the south of this the *débris* is slight, the accumulation above the rock ranging from 1 foot to 6½ feet; to the north the *débris* gradually increases in depth, from 10 feet near the villa to 20 feet at the base of the north mound. At the top of this we have 30 feet of *débris* standing on the rock, but as 5 feet of this is to be accounted for by the destruction of the later gateway, the northward slope, before the erection of this gateway, was almost uniform from the centre of the Tell to what is now the line of wall. This consideration weakens *a priori* the force of my suggestion in the last report that the north mound represents the destruction of some especially important early building, and the theory was

[1] Plate I.

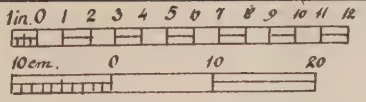
discredited by the excavations themselves, as will be shown later. On p. 93, April *Quarterly*, I stated that beyond the north mound the hill trends to the north-east for about 1,000 feet, showing a maximum accumulation of 5 feet of *débris*, with various outcrops of rock. A sketch plan of the whole summit of the hill is now published. The wall encloses about two-fifths of this area, the remaining three-fifths not having been occupied at the period of its construction. This part is strewn with Jewish and pre-Israelite pottery. The Jewish and earlier towns thus extended over the entire summit, which is about 1,900 feet long, but the main occupation, during these periods, was confined to an area only 400 feet long from the centre of what was the later walled town to the spot occupied by its north gate. At two different points an examination was conducted to ascertain whether a Jewish or pre-Israelite wall was to be found underlying the later wall, which rests on *débris*, or whether such a wall existed in a line outside or inside that of the later wall, but in each case the negative was proved.

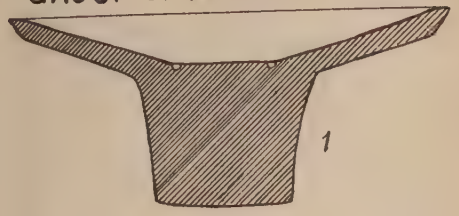
On returning to the site this spring we found the whole Tell ploughed for the summer's crop, which, though still unplanted, had to be treated in our negotiations with the owners as ready for the harvest. As in the time we were able to devote to Tell ej-Judeideh we could not hope to excavate more than a small portion of the area, we contracted for the crops covering the northern half of the area enclosed by the wall, where, as I have stated, the accumulation is greatest. Within this area we made the six large clearances marked on the plan, placing them at such intervals as appeared to reduce the possibility of our missing any important building, and to increase the chances of our striking an ancient rubbish heap which might contain valuable objects. In every case but No. 5 we cleared to the rock, or to the virgin soil, leaving, however, the lower walls *in situ*. In No. 5 we exposed the rock only over about one-third of the area.

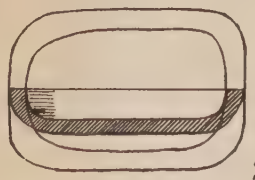
Placed side by side the pits would cover an area 120 feet long by 80 feet wide, having an average depth of 13 or 14 feet. Almost all of the soil exhumed was passed through a sieve, and each stone was examined. Walls enclosing rooms, floorings,

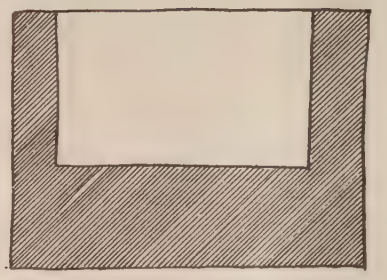
TELL EJ-JUDEIDEH EXCAVATION

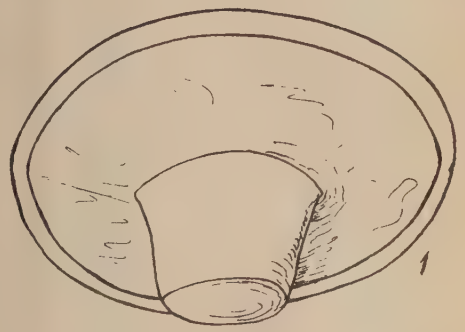
GROUP OF ASSOCIATED STONE OBJECTS

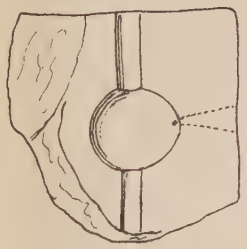


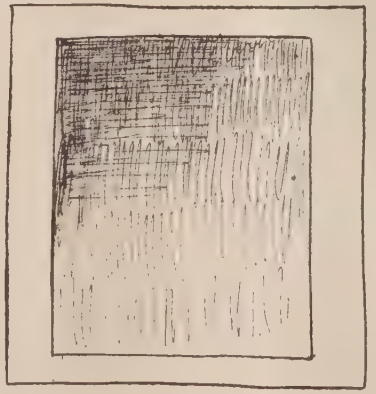


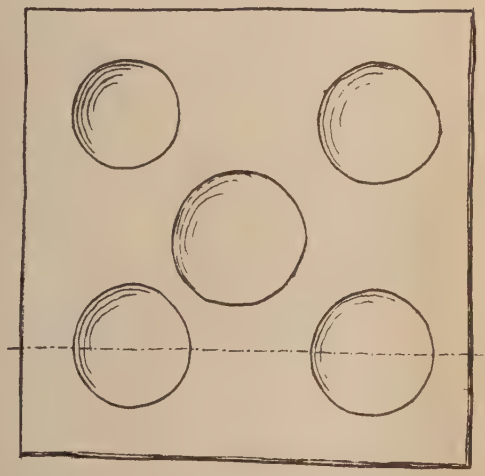


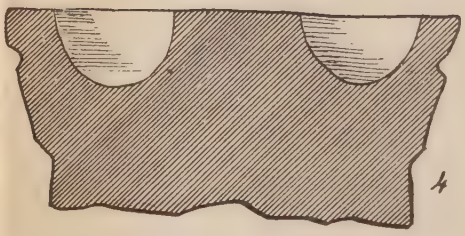


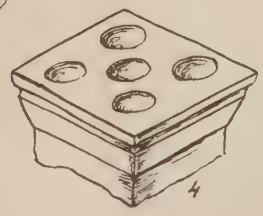


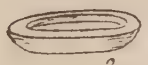












F. J. Bliss.

R. A. Stewart Macalister

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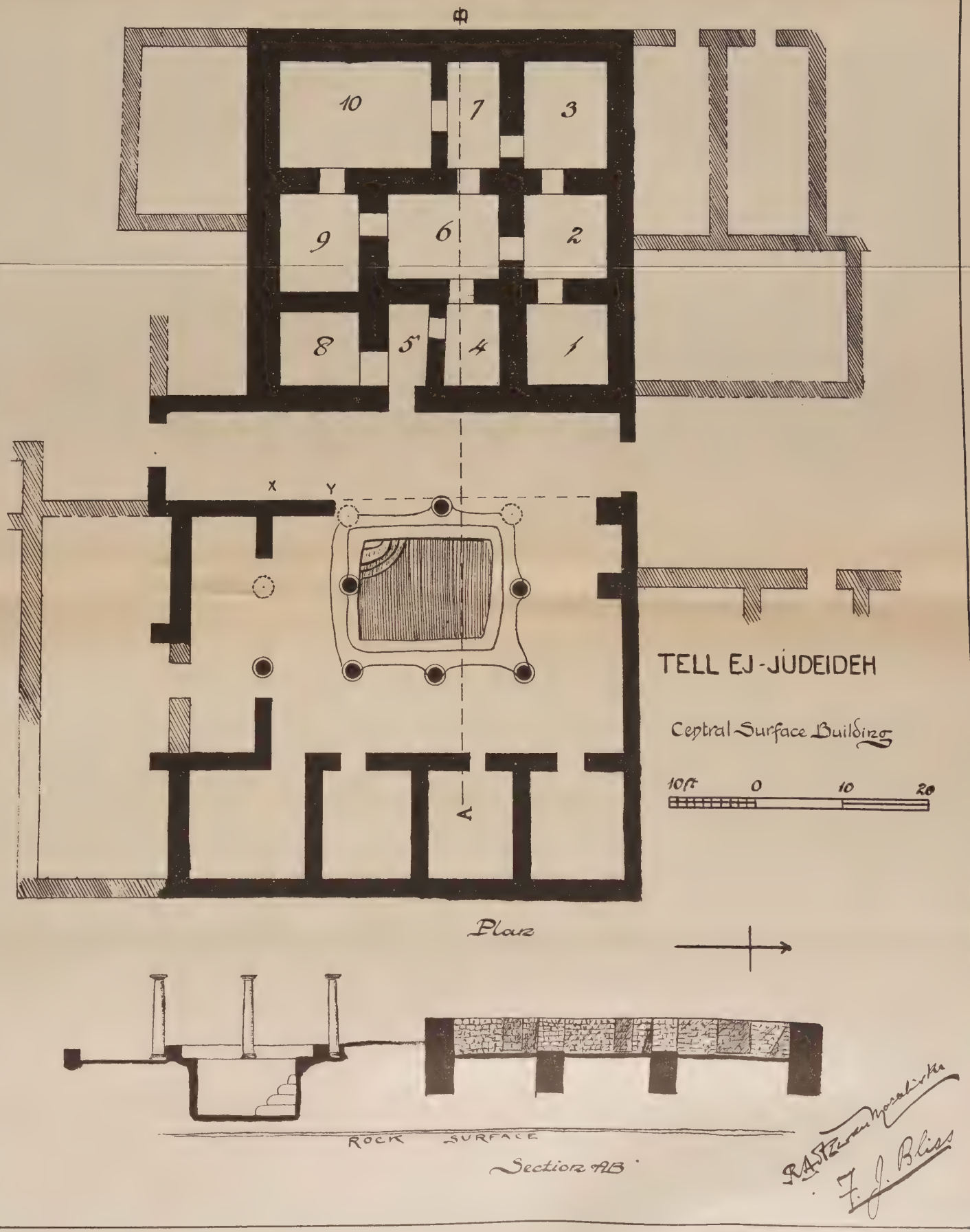
ovens, corn-pits, stone vats, &c., were found in the clearances, in some cases representing five mutually excluding periods of construction. Plans were made of the walls at all the levels, but as these naturally show only parts of buildings (owing to the circumscribed nature of these scattered clearances) their publication is withheld for the present, as what edification may be derived from such representations has already been illustrated by the plan and sections of a similar clearance at Tell Zakarîya. All the walls consist of the rudest rubble laid in mud, and there was nothing to identify any of these with an important building. Signs of conflagration were visible in many places, especially in pit 4, where in a bed of ashes above a flooring we recovered a quantity of Jewish types of pottery, and in pit 5, where, over the whole area, the stratum below the Jewish houses consisted of small calcined stones, whose condition was evidently the result of the destruction of stone buildings by severe fire. From the bottom of this pit we drove three tunnels along the rock under the north mound, which I had suspected might cover the remains of an Acropolis, but no such construction was found.

Of bronze and iron we found nothing but a few nails and pins. In stone we found the usual catapult balls, weights, flint knives, some especially fine specimens of corn-rubbers, and the group of objects figured on Plate II. These, which were found immediately under the surface, consist of the very softest limestone, called by the natives "howwar." No. 1 is a flat, circular dish on a solid foot: in shape the frustrum of a cone. On p. 104 of the "Mound of Many Cities" may be seen the figure of an object found by me at Tell el-Hesy in a stratum, dated about 500 B.C. On the base of this were scratched several rude Greek letters. I called it a *lamp-stand*, but the fracture of the upper edge makes it plain that the object in its present condition is incomplete, and a comparison with the dish found here suggests that it is of similar character. No. 2 is a rude saucer. No. 3 is a flat stone indented by a cup-mark from which two grooves extend to the edges. The bottom of the cup is connected with the exterior surface by a drain as seen in the section. No. 4, the most interesting of the series, is

unfortunately broken at the bottom. It is evidently the top part of a table of offerings. No. 5 is a stone box.

The pottery finds were very instructive. In the Jewish stratum we recovered several whole specimens of types of which before we had only found fragments, while the stamps, both Royal and private, outnumbered those discovered at all the other sites put together. These will be treated of at the end of this article. In our discussions of Palestine pottery we have recognised two stages of pre-Israelite ware: the first, called by Petrie Amorite, we prefer to name early pre-Israelite; the second, which is found associated with Phoenician and Mykenean ware, is named by us late pre-Israelite. At Tell ej-Judeideh the almost entire absence of this late pre-Israelite ware, with the associated types, has been noted in all the clearances, a jump being made from the Jewish ware to the very earliest types. Only half a dozen specimens of the local painted ware, so common at the other Tells, and a few scraps of Phoenician ware have turned up here. We have been led to conclude that the site was abandoned in very early times and reoccupied by the Jews. Unfortunately the very early ware is found much broken up, and we have failed to find here an unbroken specimen of the type exemplified by the large Tell es-Sâfi jar, which met with an accident after it had been exhumed almost entirely whole. The Greek and Roman ware strewn over the surface and found to a depth of about 4 feet prove that the place was inhabited near the beginning of the present era.

To the Greek or Roman period—probably to the latter—belongs the villa found in the centre of the Tell, the position of which was marked on the plan published last quarter by the word "foundation." At this point the generally level nature of the Tell surface was seen to be interrupted by a low mound—hardly more than a swelling of earth—crossed by lines of stones *in situ*, which plainly indicated the walls of a large building. During the present season we have excavated at this point, and I shall give an account of the work, with the general measurements, leaving the architectural notes to be added by Mr. Macalister. We began operations by following the surface clues, and soon had recovered the outlines of a building,



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directed to the cardinal points, square in shape, with a side of 45 feet 3 inches, outside measurement.[1] The outside walls range in breadth from 3 feet to 3 feet 7 inches, and consist mainly of rubble laid in courses about 18 inches high; at the angles the stones are better squared and dressed, some of them being flush—drafted or vermiculated, with the centres roughly pocked, while the drafts are chiselled. The building is divided into ten rooms by cross walls, ranging from 1 foot 9½ inches to 3 feet in thickness. The masonry about the doors consists of thin slabs of "howwar" (soft limestone), averaging about 8 inches in height and 18 inches in length, dressed diagonally with a very broad chisel. The dimensions of the rooms are as follows: —No. 1, 10′ × 10′ 3″; No. 2, 10′ × 10′; No. 3, 10′ × 12′ 9″; No. 4, 10′ 3″ × 6′ 5″; No. 5, 10′ × 4′ 9″; No. 6, 10′ × 13′ 4″; No. 7, 12′ 9″ × 6′ 5″; No. 8, 9′ 8″ × 7′ 10″; No. 9, 12′ 3″ × 9′ 8″; No. 10, 12′ 9″ × 18′. Rooms 1, 2, and 6 were quite emptied of their *débris*, which consisted mainly of fallen stones, with scarcely any pottery. The floorings are of mud, mixed with straw and small pebbles. There was no indication that this was meant to form a matrix for a mosaic, and no loose *tesseræ* were found. On the walls, which stand to a maximum height of 5 feet above the flooring, were signs of plaster, consisting of a paste formed of water and unslaked "howwar." No signs of windows appeared. The building does not rest on the rock, but on 4 feet of *débris*, the foundations being sunk some 5 feet below the level of the floorings. At all points, except at the corner of room 10, which is obviously no place for a door, and at room 5, the outside walls are preserved above the level of the floor, hence the only possible entrance was at the latter point. As this could have been barely 4 feet wide it became clear to us that the capitals and bases found in the *débris* formed no part of the entrance, and search for an extension of the system was begun.

The results of this search may be seen on the plan. The small entrance was found to give on to a court or atrium, in the centre of which was a pool originally surrounded by eight columns. Six bases were found *in situ*, and the position of the

[1] *See* Plate III.

other two was sufficiently indicated by the ruin of the wall. The intercolumnar spaces are not equal, and the axes of the two colonnades are two degrees off the right angle. The column bases are not disposed symmetrically with reference to the pool wall, as five project outwards from this, while the sixth stands on the step or seat running around the inside of the pool. It seems probable that the columns were placed with a view to a general symmetrical effect with the main lines of the building. To have placed the pool so that the sixth column should stand outside it would have necessitated the contraction of the pool beyond the apparently required dimensions, while to have arranged it so that all the columns should rest on the step would have resulted in hiding the bases of all the columns from the point of view of one outside. Accordingly, a compromise appears to have been effected. The pool walls, which show no straight lines, are covered with plaster, consisting of mortar and ashes, with minute particles of ground pottery. The plaster is in two coats, as in later times the pool wall was thickened and heightened by a wall which on three sides was carried out almost to the outer line of the column bases, and on the south side was built on to the step. This alteration is not indicated on the plan. The other component parts of the building are described by Mr. Macalister. This villa appears to be contemporaneous with the city wall, as they bear the same relation to the *débris*. The absence of coins is curious. Signs of a Roman occupation are visible at many points over the Tell, and some of the buildings abut on to the villa.[1] An approximate restoration of the pool was attempted by building on the bases *in situ* the drums and capitals found in the *débris*. A photograph was taken. Mr. Macalister's notes are as follows :—

"The remains have every appearance of being those of a Roman villa, possibly with some Greek influences in its plan, surrounded by the ruins of a settlement of small houses. The latter, whose ramifications, extending all over the Tell, recall the labyrinthine Coptic towns on Elephantine and Philae, interfere considerably with the remains of the principal building, and obscure its details. I apprehend that the principal building antedates

[1] In regard to relative dates of construction, the rudeness of the masonry rules out any argument based on bonding.

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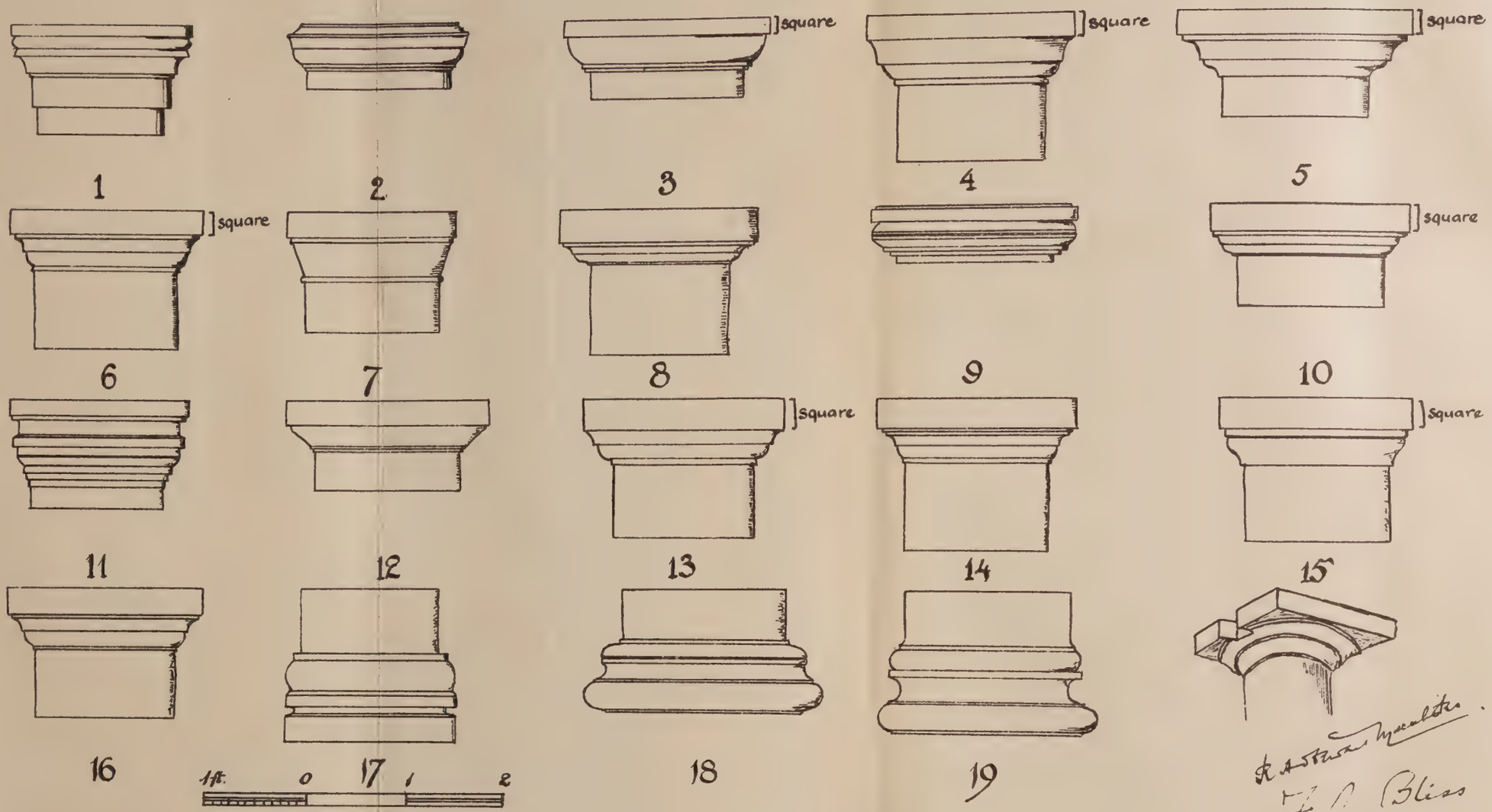
TELL EJ-JUDEIDEH EXCAVATION

CENTRAL SURFACE BUILDING: CAPITALS & BASES



Martin, Hood & Larkin, Photolitho, Gt. Newport St. W.C.

(*To face p. 205.*)

(*From a Photograph.*)

ATRIUM AND IMPLUVIUM OF ROMAN VILLA (Restored from Fragments found on the Site).

by a certain period its smaller neighbours, and that when they were built it was abandoned and probably partly ruined.

"In the large square hall, with a quadrilateral pond in the centre, we have, I think evidently, an atrium with its impluvium.[1] To the south of the impluvium is a wide doorway, in which was found the base of one column. This, from its position, was most probably *in situ;* an element of doubt is admitted by the fact that it had no foundation, but the whole work is so bad that this objection is not insuperable. Here, I take it, we have the original entrance, although its position at the side rather than at the end of the atrium is singular.

"This wide doorway opens on a shallow apartment, which would perhaps be the ostium; there is a narrow door, not centrally placed, in its back wall. I suspect, however, that outside the columned doorway there has been a certain amount of rebuilding, and that we cannot accept the existing remains as representing the original plan. I have indicated on the plan one possible reconstruction of the outer door, suggested by two large piers on the back wall of the supposed ostium. (I may remark, once for all, that in the plan walls *blackened* in belong certainly to the building under consideration, walls *hatched* do not appear to be connected with it.)

"It is just possible that this shallow apartment may be the triclinium, which does not seem capable of being placed anywhere else in the plan, but I hardly think it wide enough.

"To the east are four small chambers, not easy to assign to their original purposes. They may have been store-rooms or cubicula. From their opening out of the atrium they evidently belonged to the villa.

"To the north the only noticeable feature is a recess between two pilasters—possibly the tablinum.

"The columns are ranged immediately at the edge of the impluvium, not set back. They have Attic bases and ugly squat capitals, differing slightly among themselves, while maintaining the same character.[2] The mouldings are 'roughed out' in the stone, and finished with a fine plaster coat: thus, the cyma recta, which appears on some, is a common roll and fillet on the stone. Traces of vermilion appear on some of the mouldings.

"Unfortunately in a work so rough the system of proportion adopted cannot easily be recovered with exactitude, and there is no clue to the original length of the columns. (In the sections[1] it has been taken conventionally at 10 feet.) The columns are built in drums, dowelled together with square dowels—probably stone, as no sign of oxidation appears on the stones.

"As usual, the drums were chiselled out roughly, made to fit exactly by being rotated end to end backwards and forwards, and finally were smoothed into shape with the comb. Two unfinished drums were found illustrating these processes. Neither had been combed, and from one,

[1] Plate III. [2] Plate IV.

the ears, left for convenience of grasping for rotating the drum, had not been chiselled off.

"Many of the drums are signed with a mark, consisting of a letter, Greek or Roman (L is the only exclusively Roman letter), with or without one or more vertical strokes after it (Plate V). The attractive theory that the letters were denotations of the individual columns, and the strokes represented the numerical order of the drums, in each was negatived by trial, it being found that drums consecutively numbered do not fit together. We are, therefore, obliged to fall back on considering the letters as masons' marks, and the strokes as indicating the number of the drums executed by each. The Greek letters may be indications of the nationality of the workmen, or else may be mere affectations.

"The only indication of the character of the roofing consists of a square mortice cut out of opposite sides of the abacus of all capitals that can be referred to the atrium colonnade. That this mortice—which measures 5 inches to 5½ inches across—is intended for the reception of roof timbers, and not for the framing of the compluvium, is shown by the fact that invariably it occupies opposite sides of the capital. Were the latter the correct theory, the corner columns would show the mortice on adjacent sides.

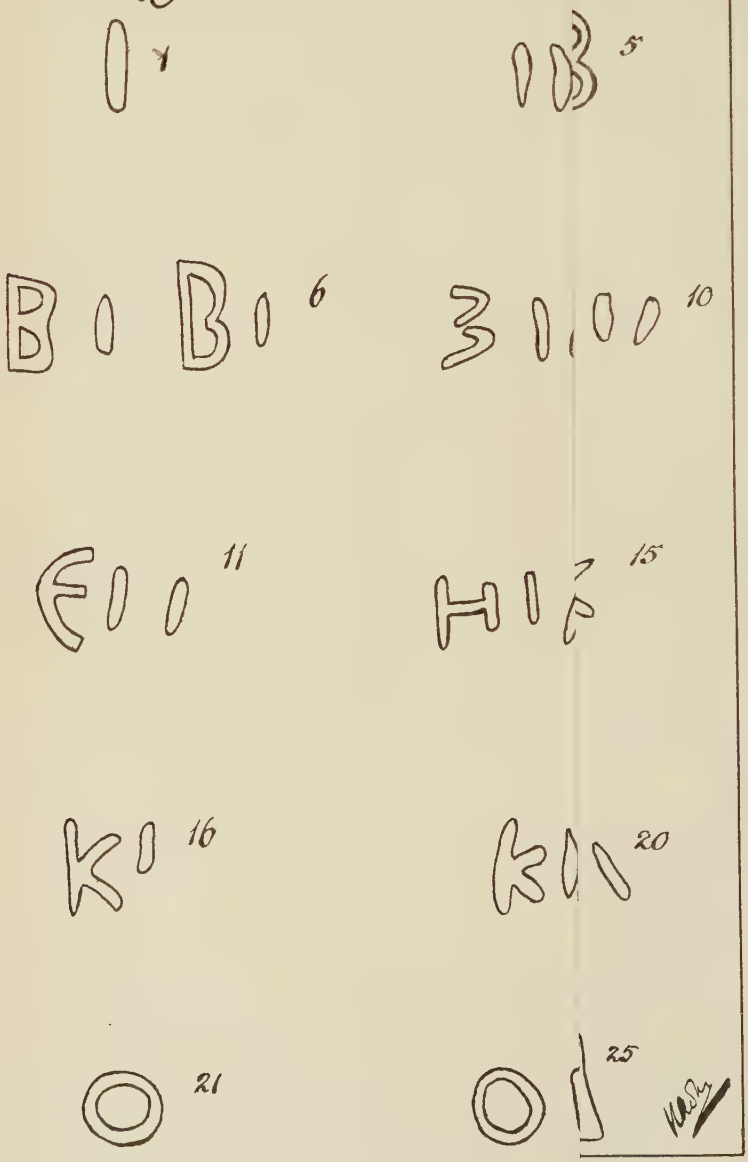
"The western colonnade of the atrium is entirely occupied by a faux, terminating at each end in external doors. These, no doubt, led to out-houses, and probably at least one led to a peristyle court or some other construction the existence of which is postulated by capitals and bases, in design different from those belonging to the atrium, found lying about in various places. All such external structures have, however, disappeared, and their sites are occupied by small chambers and houses, between which and the main building it is impossible to trace a radical connection.

"The floor of the faux is paved with mud beaten down. It is raised 2 feet above the level of the floor of the atrium, and screened off from it at the southern end by a dwarf wall, marked XY in the plan.

"The extension of the faux to the south, beyond the breadth of the atrium, will be noticed. In the centre of the west wall of the faux (though not centrally placed as viewed from the atrium) is a comparatively narrow doorway, giving access to a square building with thick walls. There are ten apartments in this building, the plan of which is perfectly straightforward and, except for the slight deflection of one wall, admirably regular. The central apartment, having no means of lighting except from above, was in all probability an open court by which light and air were admitted to the other apartments of the system. The position in the plan, the extra strength of the walls, the apparent absence of external windows (thus securing the complete privacy of this part of the building), forcibly suggest that we have here a gynæconitis arranged round its own central court, as was the case in Greek houses.

"Nothing whatever was found to fix an exact date for the building, and the architectural indications are of too indefinite a character to raise any suggestion that might be made above the level of a guess."

Tell ej-Judeideh : Mason's Marks from



Photolitho Gr. Newport St. W.C.

At Tell ej-Judeideh we have recovered 37 jar-handles upon which Royal stamps have been impressed. These are in various stages of preservation, and show the names of four different towns, one of which is unknown, whence I prefer not to vocalise it, giving only the consonants, M. M. S. T. For convenience I divide the handles into 11 classes:—

I.	Two-winged type, symbol only	4
II.	„ „ traces of למלך ...	7
III.	„ „ Ziph	1
IV.	„ „ Hebron	3
V.	„ „ Shocoh	5
VI.	„ „ M. M. S. T.	6
VII.	Four-winged type, symbol only	1
VIII.	„ „ traces of למלך	5
IX.	„ „ Ziph	2
X.	„ „ Hebron	1
XI.	„ „ Shocoh	2
	Total	37

Without regard to difference in the symbols we may make another division as follows:—

I.	Place-name indistinguishable	17
II.	„ Ziph	3
III.	„ Hebron	4
IV.	„ Shocoh	7
V.	„ M. M. S. T.	6
	Total	37

Under Class I of this second list are included one handle in which the first letter of the place-name is *zayin*, suggesting Ziph, and one in which the last two letters, though imperfectly stamped, appear to be the final two letters of Hebron. In all other cases in this class the lettering in the lower line is entirely wanting, owing to weathering, disintegration, or imperfect stamping.

Casts are being prepared of all the stamps which show any

peculiarities, however minor. On Plate VI are drawn eight specimens for illustration of the present article. The place name of No. 1 is effaced, and only traces of the למלך appear, but the handle is drawn to show the only example we have found of the ornament, consisting of two concentric rings above the cartouche, noticed by Professor Sayce on several of the jar-handles from Jerusalem (*Quarterly Statement*, January, 1900, p. 67). No. 2 is of the two-winged type, with the word ממשת in the lower line. By analogy this must be taken as the name of a town, but it is not found in the Bible. We cannot see here a blunder of an engraver who meant to cut מרשת, for out of the six specimens found (all of the two-winged type), the spacing of the letters shows that three are certainly different stamps; on two of these the second מ is perfectly distinct, while in the third the letter occupying this space, though blurred at the top, shows the curved tail of a כ, and not the straight tail of a ר. Of the other three, one (No. 3 on the plate) shows the same stamp as No. 2, the stamp, however, having been used twice, as proved by the blurred symbol, the repetition of the lower end of the *cap* in the upper line and of the *shin* in the lower line; the second shows two unmistakable *mims*, though the two final letters can be made out only by a strong lens; the third is sadly blurred, but the final שת is plain.

The recovery of the name of this city throws a light on the two mysterious letters שת found on a Royal stamp in Jerusalem. On p. 205 (*Quarterly Statement*, 1899), Professor Clermont-Ganneau points out that the position of these letters shows that they are the last two of a word of four letters, for which he suggests מרשת—Moreshat. As the other names, Shocoh and Ziph, occurring on the Jerusalem handles have been found at Tell ej-Judeideh, it seems probable that the specimens ending in שת are identical at the two places. Light is also thrown on a jar-handle of Tell Zakarîya described by me on p. 186, *Quarterly Statement*, 1899, as follows:—"The other (undrawn specimen) is much disintegrated: only the last part of the lower line appears, showing distinct traces of two letters, most probably מ and ש respectively. Before the מ indications

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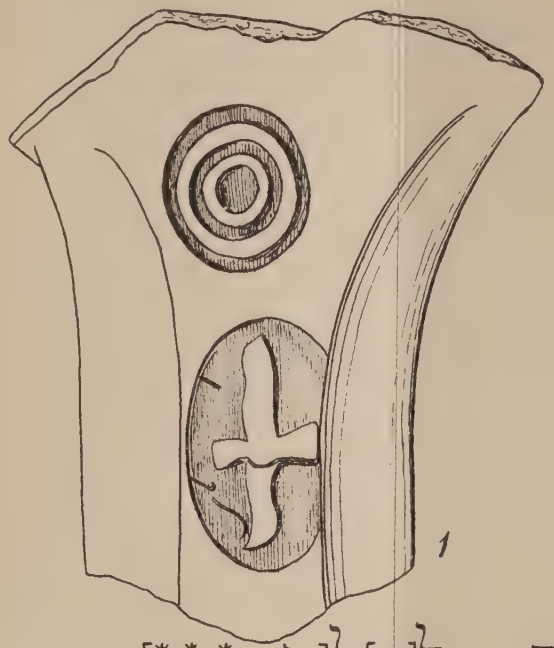
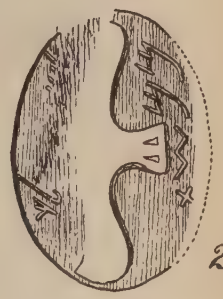
TELL EJ-JUDEIDEH EXCAVATION

ROYAL STAMPS

1 in.
1 2 cm.


1


2

למלך ממשת

3

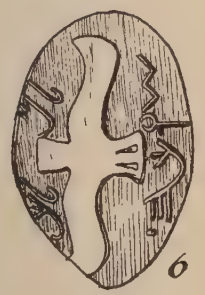
למלך ממשת

4

למלך חברן

5

למלך שוכה


6

למלך שוכה

7

[למלך] זיף

8

למלך זיף

F. J. Bliss.

R. A. Stewart Macalister

Martin, Hood & Larkin, Photolitho, Gt. Newport St. W.C.

of the tail of a כ or ך appear, but the space between this letter and the margin of the stamp hardly admits of the insertion of another letter, thus seeming to rule out Michmash (מכמש) as a reconstruction." I have given this handle a re-examination, and while verifying my former observations, I notice that there is space for a fourth letter to the left. The tail of the first letter could as well be that of a *mim* as of a *nun* or *cof*. Hence this stamp (this time of the four-winged type) is probably ממשת, and I have marked it as such in my list of the handles from Tell Zakarîya.[1]

As this town is not mentioned in the lists in the book of Joshua, we must assume either that it was not built till Jewish times or that it came under the head of unenumerated villages in such a phrase as "eleven cities (whose names are given) with their villages" (Joshua xv, 51). In this case it probably became important only after a Royal pottery was established in it. In the first case we must look for it at some site where there are no pre-Israelite remains. This we must bear in mind when excavating at Tell Sandahannah, where the lowest stratum appears to be Jewish. It should be noticed, however, that the radicals of the name correspond to no known Hebrew root.

No. 4 is the only specimen we have found of the two-winged type on which the name Hebron is perfectly preserved. Contrary to the usual method in affixing the two-winged stamp, in the present instance it is found parallel to the rim of the jar. Of the other two Hebron stamps with the two-winged symbol found at this site, owing to bad stamping in both cases, one shows the tops of the first three letters, with a complete *nun*, and the other shows a complete *cheth* and the top of the *beth*. Of the four-winged type, the single specimen found here shows the first three letters, חבר. The scarab is articulated. I may mention here that I was somewhat surprised to find, on p. 170, April *Quarterly*, 1900, Professor Sayce announcing as something new: "The place-name mentioned by Dr. Bliss (*Quarterly Statement*, January, p. 13) as beginning with the letters *cheth* and *beth* is Hebron." Remembering that I had

[1] A cast of this stamp was forwarded in April, 1900, and is No. 15 of the list.

mentioned this identification in my report I turned to the page, but found a printer's error of Hebrew for Hebron.

Nos. 5 and 6 show the place-name Shocoh associated with a symbol of the two-winged type. The stamp is identical, but owing to better pressure on No. 6 the feathers in the tail are distinct. The dots at the end of the two lines should be noticed, also the ligature between the *caph* and *he*, and the peculiar form of the *waw*. Two other beautiful specimens of the same stamp have been found. The fifth "Shocoh" handle under V in the first list shows only the final *he*. Of the four-winged type we have two specimens; one shows the characteristics of the "Shocoh" handles on Plate V, facing p. 184, *Quarterly Statement*, 1899, with the ligature between the *shin* and *waw*, and the four-barred *he;* on the other the entire stamp is faint, but the first two letters of this place-name are plainly *shin* and *waw*.

Nos. 7 and 8 have the place-name Ziph, and are of the two-winged and four-winged type respectively. The engraver of No. 8 appears to have devoted his attention principally to the beautifully articulated beetle, as he has not only bungled the second *lam* in the upper line, but has both inverted and placed upside down the *yod* in the lower line, confused no doubt in the necessary process of reversing the letters on the stamp. A second specimen of this same stamp, in general more faintly impressed, has turned up here. However, the upper line is clearer, and as this is somewhat effaced on the first, this line in the drawing is restored from the second specimen. Re-examined in the light of these specimens, the stamp from Tell Zakarîya, described as "illegible" in *Quarterly Statement*, p. 186, 1899, appears to be identical with them. The scarab is articulated; though worn almost smooth, the space below shows the upper bar of the *zayin*, and the misplaced *yod*, which formerly put us out; the letters of the upper line have the same long, scratchy character, and minute measurements between letters show their relative position to be the same. Accordingly it is included with the Ziph handles from Zakarîya.[1]

[1] The last two specimens are Nos. 5 and 14 respectively in the list of casts and moulds forwarded in April, 1900. A cast of the duplicate of No. 5 (No. 8 on the present plate) will be sent later.

The number of Royal stamps found up to the present day is now great enough to demand a more complete discussion than I have thus far attempted, of their origin, nature, meaning, destination, &c. Before entering into this I shall add to the catalogue of Tell ej-Judeideh stamps, lists of those found by us at the other sites excavated :—

Tell Zakarîya.

I.	Two-winged type;	no place-name	2
II.	„	„ Ziph	1
III.	„	„ Hebron	1
IV.	Four-winged type;	no place-name	2
V.	„	„ Ziph	2
VI.	„	„ Hebron	3
VII.	„	„ Shocoh	5
VIII.	„	„ M. M. S. T.	1
		Total	17

All these have been discussed in the pages of this Journal.

Tell es-Sâfi.

I.	Four-winged type;	no place-name... ...	4
II.	„	„ Shocoh	2
		Total	6

Those found during the first season are mentioned on p. 193, *Quarterly Statement*, 1899; one is illegible, the other has the place-name Shocoh. Of the four found during the second season, the first is broken off above the place-name, the second is smudged below the symbol, the third is probably Shocoh, as the first letter is a *shin* (the rest being effaced), and on the fourth the לְמֶלֶךְ shows all the characteristics of the first line of No. 8 on the present plate, noted above, and is evidently identical with that stamp from Ziph. As, however, the second line is completely effaced it is not included in the list of Ziph handles.

From the bottom of one of the two shafts which represent all the excavation done thus far at Tell Sandahannah, we found a Shocoh jar-handle.

A few statistical lists will be convenient for purposes of comparison, in these the following abbreviations are used:— T. Z. for Tell Zakarîya, T. S. for Tell es-Sâfi, T. J. for Tell ej-Judeideh, and T. Sand. for Tell Sandahannah:—

Total number of Royal stamps found at T. J. ...	37
„ „ „ T. Z. ...	17
„ „ „ T. S. ...	6
„ „ „ T. Sand.	1
Total	61

Total number of Royal stamps without place-names	25
„ with place-name, Ziph	6
„ „ „ Hebron	8
„ „ „ Shocoh	15
„ „ „ M. M. S. T. ...	7
Total	61

Total number with place-names	36
„ without „	25
Total	61

Total number of two-winged type	30
„ four „	31
Total	61

The name Ziph is found at T. J. and T. Z.
„ Hebron „ T. J. and T. Z.
„ M. M. S. T. is found at T. J. and T. Z.
„ Shocoh is found at T. J., T. Z., T. S., and T. Sand.

It will be noticed that the number of Royal stamps found at Tell ej-Judeideh outnumbers by 13 the sum total of such stamps

found at all the other sites. This may be accounted for partly by the fact that at our present site we have collected hundreds of handles strewn over the surface, the examination of which has resulted in the discovery of several stamps, and partly by the fact that during this season we have added to our usual dry-polishing of all handles excavated the process of washing and scrubbing those more thickly covered with dirt, while the incrustation on others has been removed by acid. But these facts are not sufficient to account for the disproportion. It is curious that, while the types of pottery with which these handles are associated here were found in great quantities at Tell el-Hesy, no Royal stamps came to light. Although it is just conceivable that a few specimens may have been overlooked, it is certain that these stamps are not to be found there in any great quantity.

We may consider the discussion of the jars with Royal stamps under four heads:—(1) The handles. (2) The symbols. (3) The inscriptions. (4) The date.

(1) *The Handles.*—All the specimens from T. J. are made of rather coarse black clay, usually containing minute particles of quartz, &c., the surface being black, brown, yellow, light red, or dark red, according to the intensity of firing. One specimen from T. Z. and one from T. S. show a red colour all through the section of fracture, but the clay appears to be the same as in the other handles, and the red colour inside probably means that these two specimens had been subjected to the severest firing. In examining a heap of sherds thrown out from a modern pottery at Beyrout, where the potter was using a uniform black clay for all his vessels, I observed that the surfaces of these sherds showed almost every variety of colour. All the handles from the four sites have a rib, more or less pronounced, and in most cases double. In shape the handles show two varieties: thin handles with slight curvature in breadth (giving an almost flattened top), and thick handles with a more pronounced curvature in breadth. The four-winged symbols are confined to the thick type, while of the two-winged symbols found at T. J., about two-thirds are stamped on the thin handles and one-third on the thick. No

jar has been found complete, but that the vessels to which these handles belong must have been very large is proved by the extremely slight curvature of the portions attached to the handles. The jars were wheel-turned.

(2) *The Symbols.*—The stamps consist of an oval containing a symbol with two lines of writing, one below and the other above. The symbols are of two kinds: one has two wings, the other four. In all cases but one (No. 8, Plate VI, in the present number) the axis of the body of the two-winged figure is at right angles to the axis of the handle, while that of the four-winged figure is parallel to it. Of the 61 specimens found 30 are of the two-winged type and 31 of the four-winged type. The clay is the same, and the four place-names have been found in connection with both types. In general the two types have been found in the same archæological stratum. In one case at T. Z. (*see* pp. 184–185, *Quarterly Statement*, 1899), three specimens of the two-winged type were found in a few inches of *débris* upon a flooring, and above this occurred another flooring, upon which were three specimens of the four-winged type. This proves no more than that the three latter individual handles were used later than the former.

The two-winged figure has some characteristics of a bird, showing a head (wedge-shaped), outstretched wings curved upwards, and a tail sometimes divided into feathers. The four-winged figure is treated in some cases naturally, and in others conventionally. The natural treatment can best be seen in No. 8, Plate VI, where we have a four-winged beetle, with well-articulated body and well-shaped head. In the conventionalised type the head is wedge-shaped and the body terminates in a zig-zag.

In the "Recovery of Jerusalem" (p. 473), where the two-winged types found in Jerusalem are discussed, it is stated that the symbol resembles in some degree a bird, but "is believed to represent a winged sun or disc, probably the emblem of the sun-god, or possibly of royal power." Professor Clermont-Ganneau (*Quarterly Statement*, pp. 204–5, 1899) regards the four-winged figure as an Egyptian scarab, and the other type as a "symbol also of Egyptian origin and of an equally popular

character, the two-winged disc with a bird's tail," which "is to be identified with the symbol called by the Israelites Kabod." Professor Sayce (p. 219, *Quarterly Statement*, 1899) appears at first to have regarded both symbols as winged discs, but on seeing the articulated scarab figured on p. 13 of the January *Quarterly*, 1900, concludes that they are both scarabs (p. 170, April, 1900), and refers to the two-winged beetle found on a scarab of Antef IV of the eleventh dynasty (Petrie, "Historical Scarabs," 159). In favour of this view is the fact that the wedge-shaped heads are identical on both symbols. Apart from this it would seem to be more natural to take the two-winged figure as simply a bird.

(3) *The Inscriptions.*—On each well-preserved handle are two lines of writing separated by the symbol, the upper line having the letters לִמְלֶךְ, and the lower the name of a town. The reading depends upon whether לִמְלֶךְ is to be taken relatively as לְמֶלֶךְ, "to the King of ——," or absolutely as לַמֶּלֶךְ, "to the King." In the first case we must read: "To the King of Hebron, Shocoh, or Ziph," as the case may be. This was my reading on the discovery of the first specimen with the name Hebron (*Quarterly Statement*, p. 104, 1899), but the finding of numerous other stamps, always in connection with late Jewish pottery, shows that these inscriptions must post-date the time when the country was divided up into petty monarchies. I now prefer the suggestion of M. Daveluy (adopted by M. Clermont-Ganneau, *Quarterly Statement*, 1899, p. 206), that the inscriptions should be isolated into two parts, with no grammatical relation between them, giving the reading, "To the King (of Judah) —— Hebron," &c. Thus far I follow M. Ganneau, but I differ from him in the interpretation of the inscription. He says:—"Following this order of ideas, we may imagine that these vases were intended to contain products—of oil, for example, of wine, or perhaps flour or grain—representing the tributes furnished in kind to the royal storehouses by the chief cities of the kingdom. This would adequately explain the presence at Jerusalem of those vases stamped with the names of different cities, all characterised by the general

official expression: (belonging) to the king. From this point of view it is well to take account of the significant, material fact that the handles at Jerusalem were found at the very approach to the royal palace." He adds that the first part of the inscription, L-M-L-K. is equivalent to the modern formula, "His Majesty's Service," and that the second part indicated respectively the name of the city to which these jars were apportioned. To prevent all fraud in regard to the amounts to be delivered, the most practical method would naturally be to have the receptacles made, according to the proper gauge, at the royal manufactories, and officially stamped with the royal seal. The presence at Tell Zakarîya of a handle stamped with the name of Hebron, he says, may be explained in various ways—for example, on the ground that jars from Hebron destined for the capital (or *vice versâ*) might have been temporarily transported to the city represented by Tell Zakarîya to be sent on to Jerusalem, together with other jars coming from different towns in the district, and deposited here as a central point; or, again, that orders might have been given to Hebron to deliver at the neighbouring city a certain portion of the dues in kind at a time when the towns of the district were being put on a war footing.

Keeping in mind that, according to M. Ganneau's theory, the ultimate destination of these jars was Jerusalem, and that the presence of the Hebron jar at Tell Zakarîya is explained as an accident, it should be noticed that since his theory was advanced handles with the names Hebron, Ziph, and M. M. S. T. have been found at T. Z. and T. J., and handles with the name Shocoh at T. Z., T. J., T. S., and T. Sand. It is unlikely that jars containing the discs of Shocoh should have been deposited at four different central points, or that the town represented by T. J. should, in the times of war, have been forced to draw on the stores of Hebron, Ziph, Shocoh, and M. M. S. T. Moreover, it is difficult to account on either of these suppositions for the presence at T. Z. of a jar from the distant town of Ziph. It seems to me that the geographical distribution of the stamps is most simply explained by regarding them as belonging to different potteries, which were royal monopolies, situated at

Hebron, Ziph, Shocoh, and M. M. S. T. This is the view held by Professor Sayce (p. 219, *Quarterly Statement*, 1899). Both he and M. Ganneau refer to the existence of royal potteries as indicated by the obscure passage (1 Chron. v, 22, 23), but the latter does not hold that these necessarily existed at Hebron, Ziph, &c.

The finding at Tell Zakarîya of ware from the potteries of Hebron, Ziph, Shocoh, and M. M. S. T. is paralleled to-day in the village of Zakarîya, where the natives get their jars from itinerant hawkers, one day purchasing Hebron ware, another day Ramleh ware, and still another day Gaza ware. Jars from the latter place are taken for sale as far as Nâblus. Pottery made at the foot of Mount Hermon is sold in the villages near Beyrout. It would appear that in the district in which we have been working, the pottery was in ancient times mainly supplied by the manufactories existing at the four towns above mentioned, as, in the 36 stamps with place-names already discovered, none but these names appear. This general theory would also account for the presence at Jerusalem of stamps with the names Shocoh, Ziph, and M. M. S. T., as well as for the stamp on which Professor Sayce traces signs of the name Nobah (*Quarterly Statement*, p. 69, January, 1900), where probably was to be found one of the royal potteries in the district north of Jerusalem. Noting the difference between the two symbols (*Quarterly Statement*, 1899, p. 355), M. Ganneau suggests that they may be "marks peculiar to different kings, or, rather, factory marks distinguishing the different royal pottery manufactories where the jars were made." It appears to me that the former suggestion is the more probable, as the latter would involve, according to my theory, two different royal potteries at Hebron, Shocoh, Ziph, and M. M. S. T. respectively.

Mr. Macalister's view is that these four towns were the centres of districts in which were collected the dues in kind of the surrounding villages. The geographical distribution of the jars he would account for on the theory that, after the produce was delivered in Jerusalem, the jars became the perquisites of the tax-gatherers, who then sold them to whoever would buy.

I must add the theory of our foreman Yusif, as it is well to note the ideas of a native who argues from the conditions obtaining to-day in a land which has preserved so many ancient customs. He regards these jars as simply officially stamped measures of capacity, which varied locally at the towns Hebron, Ziph, &c. He notes that the measure of wheat varies to-day at Tell es-Sâfi, Zakarîya, and Beit Nettîf, villages within a radius of three miles, which have intercommunication of trade, and must use each other's standards. He points out that in buying a *rotl* of *samn* (native butter) in this district you are asked whether you mean a "Hebron *rotl*" or a "country *rotl*"; that in Jerusalem, notwithstanding the official standards, you may, in the same shop, buy cloth according to 3 or 4 yard measures; that in Beit Jibrîn you may reckon the napoleon at 109 piastres (Jerusalem currency), at 141 piastres (Hebron currency), or at 219 piastres (Gaza currency); and that in his native village, in the Lebanon, the shops are subject to official visitation, the object of which is to see what standards of weight, capacity, &c., are used (as, for example, the local or Constantinople weights), and whether these standards are correct. According to him the למלך represents the Royal recognition of a local standard, and the place-name indicates what that standard was. This almost too ingenious theory cannot be tested until the discovery of whole jars admits of the comparison of the relative capacity of jars with the different stamps.

(4) *The Date.*—Of the 37 examples discovered at Tell ej-Judeideh a few were found scattered over the surface, while the rest occurred in the stratum of *débris*, characterised mainly by Jewish pottery, which extended from the surface to a depth ranging from 7 feet to 9 feet. In places the upper 4 or 5 feet of soil were disturbed by the sinking of foundations for later buildings and contained a mixture of Greek, Roman, and Jewish types. This disturbance accounts for the finding of Jewish ware on the surface. That the jar-handles are to be associated with the Jewish rather than with the later forms is proved (apart from the Hebrew lettering) by the fact that exactly the same types of double-ribbed handles occur in the

TELL EJ-JUDEIDEH

PRIVATE STAMPS

timbres

1

תושע צפן

4

שבנית עזרית

?

8

?

11

לשמר ן

R.A.S. Macalister

F. J. Bliss

arun, Hood & Larkin, Photolitho, Gt. Newport St. W.C

undisturbed portion of the stratum. The Jewish ware shows a great many types, which are also associated at Tell el-Hesy, and these dated from about 800 to 500 B.C. In connection with these forms are early Greek types found to have the same range of date in Egypt. The occurrence of the ribbed handles with stamps in the upper in contrast to the lower part of the stratum suggests that the inscriptions date from the later part of this period—say 650 to 500 B.C. Professor Sayce (*Quarterly Statement*, p. 69, 1900) is inclined to refer them to the eighth century B.C., and Colonel Conder (*Quarterly Statement*, p. 253, 1899) regards a date about 500 B.C. as being the most probable. At Tell es-Sâfi and Tell Zakarîya the stamped handles were found in strata having the same range of date as the Tell ej-Judeideh stratum, and the one specimen discovered thus far at Tell Sandahannah was found on the rock, associated with Jewish types and with a stratum showing Rhodian ware superposed.

During this season at Tell ej-Judeideh we have found 15 jar-handles on which private stamps have been impressed in Hebrew characters. As stated above, the handles have the same form with those showing the royal stamps, they are also made of the same clay. Of these 15 stamps, nine are drawn on Plate VII, three are duplicates of Nos. 1 and 2, and three are so worn or imperfectly stamped as to be illegible. However, casts are to be taken. Turning to the plate we notice the absence of the *lam* of possession on stamps 1, 2, 4, and 6. No. 1 shows the name, הושע צפן, Hoshea or Hosea (the son of) Zephen. A similar stamp was described in the last report from this place. Of stamp No. 2 three specimens were found, the identity being proved by minute measurements between corresponding letters. On one the edges of the enclosing oval are scaled off; on the second the lower line is badly stamped, on the third (the one drawn) the upper line is complete, while the lower line shows a space for another letter between the first letter preserved and the curve of the oval. The first letter preserved shows the characteristics of a *zayin*, if we neglect the diagonal line running at right angles to the lower bar of the *resh*. Assuming, on the other hand, that this bar is a composite

part of the letter, we can see some resemblance to the *tsade* found on No. 1, but the absence of names compounded with יהו and the root צד or צר preceded by a first radical, and the difficulty of reconstructing a name from such roots, almost all of which involve the ideas of *shutting up*, *enclosing*, have decided me to regard the bar in question as a slip of the engraver's tool such as is found in the *nun* of the upper line of this stamp, and occurs also in stamp No. 1. We thus have a *zayin* preceded by some small letter, which was probably an *'ayin*.

Accordingly we read the full inscription שבניהו עזיריהו. The first name is found in its shorter form, שבניה (Shebaniah), in the upper line of Stamp 4, and occurs in this form in 1 Chron. xv, 24; Neh. ix, 4, &c. Gesenius suggests the meaning "whom Jehovah has made to grow up." Assuming an initial *'ayin*, the second name reads עזיריהו, Azariah (whom Jehovah helps), found in its longer form in 1 Kings iv, 2, and in its shorter form (עזריה), in Dan. i, 6, &c. This form occurs in the second line of Stamp 4, which thus shows the same combination of names (though in their shorter form) as found on Stamp 2. We may have here two different stamps of the same man, who used the longer and shorter forms of his names indifferently.

The names of No. 3 are enclosed in a rectangle, divided into two parts by a single bar. It reads לנחם עבדי. The first name, נחם, means "consolation," and is found in 1 Chron. iv, 19, where it is transliterated Naham. The left vertical bar of the *cheth*, though worn, is quite traceable. The second name, עבדי, is, according to Gesenius, for עבדיה, signifying servant of Jehovah; it occurs in 1 Chron. xvi, 29; 2 Chron. xxix, 12; and Ezra x, 26. No. 4 has been discussed above. The pressure used in stamping the left part of the oval was slight, but signs of a final *he* are traceable in each line. Even should these not be taken into account, we still have two Biblical names, שבנה, Shebna (2 Kings xviii, 18), and עזרי, "help of Jehovah" (1 Chron. xxvii, 26). The right part of stamp No. 5 is lost owing to unequal pressure, but it is plainly of a different character. It shows signs resembling a *mim* and a *shin*, but the other symbols can represent no Hebrew letters. The

upper line of No. 6 reads מנחם, Menahem (Consoler), the name of one of the Kings of Israel (2 Kings xv, 17). The *cheth* is blurred, but the type is found in Euting's "Alphabets," under the heading "Old Hebrew Seals and Gems." The lower line ends with a *nun* followed by a *he*; the first part is blurred, but traces of two letters can be made out, which permit us to read the name לבנה, Lebanah. This, signifying "the white one," used poetically for the moon, is found as a proper name in Ezra ii, 45, and Nehemiah vii, 48. The slight traces of letters appearing in the imperfectly stamped No. 7 do not warrant my offering any opinion as to the reading. No. 8 is quite a different type from those described. It shows a four-winged bird, with the feathers marked in fine lines, below which are faint traces of the tops of several letters. On stamp No. 9 only the lower line appears, showing the letters מכא, followed by a perfectly clear symbol, which thus cannot be a blurred letter, and which I take to be an ear of corn. מכא may conceivably be the last three letters of a word commenced on the upper line. If we take them as forming a complete word, this may be a shorter form of מיכא, Micha, found in Nehemiah xi, 17, and signifying, "Who is like Jehovah?" The still longer form, מיכיה (Michaiah), occurs in Nehemiah xii, 35. It is noteworthy that in the same stratum which contained these testimonies to Jahveh worship, occurred several Phallic emblems. This suggests a pre-exilic date for the stamps before the heathen rites had been extirpated.

No. 10 is not stamped upon a jar-handle but upon a bit of clay, which shows at the back the impression of a cord, indicating that it was attached to a document or used in sealing up a jar. It reads ברה. The root involves the meaning of *strength* and *magnitude*. The noun כְּבָרָה originally means *length*, and derivatively a definite measure of length, translated in Gen. xxxv, 16, xlviii, 7, and 2 Kings v, 19, as "a little way"—a meaning plainly inapplicable in the present instance. The noun כְּבָרָה, translated "sieve" in Amos ix, 9, is equally inappropriate here. Possibly it may be a local name for a definite measure of capacity, in which case the stamped clay-

was used to seal up a jar of such capacity. The root meaning permits this view. Or, again, it may be a woman's name (as feminine names end in *he*) signifying "the great, *i.e.*, the important, person." No. 11 is impressed upon a bit of black wax showing the markings of cloth on the back, with which possibly was sealed the small jar in which it was found. Below a two-winged creature, resembling a bird, is a beautifully fine inscription reading לשמר נ . . ., the wax being broken off after the first letter. Shemer is the name of the man of whom Omri bought the hill of Samaria (1 Kings xvi, 24), and the name Shomer occurs in 1 Chron. vii, 32.

Tell ej-Judeideh, *June 2nd*, 1900.[1]

A DOLMEN NEAR BEIT JIBRÎN.

By R. A. Stewart Macalister, M.A.

It has hitherto been a commonplace with Orientalists that no megalithic remains are to be found in Palestine west of the Jordan. The discovery of an alignment of three standing stones, in the excavation of Tell es-Sâfi, was the first circumstance which rendered this idea out of date.[2] I have now to announce the discovery of a second rude stone structure. This is a dolmen, the only example yet found in Western Palestine, which exists in the sequestered valley close to Beit Jibrîn. To reach it take the road from Beit Jibrîn towards Zakarîya, as far as the Roman milestone at the second mile (*cf.* the "Revue Biblique," July, 1899, p. 421); then follows the valley at the

[1] Since this report was sent I have picked up from the surface of Tell Kubeibeh a jar-handle with the Royal stamp, the place-name being Hebron. My view as to the royal potteries has thus received fresh confirmation, for while the geographical distribution has been widened, the place-name is one of the four already recovered.

[2] Since writing the above I have been informed of the discovery of another, the details of which I do not feel at liberty to give, as they have not yet been made public by the finders of the monument (the Dominican Fathers of St. Étienne, Jerusalem).

mouth of which the milestone stands. At a short distance the structure will be noticed—a conspicuous object on the right-hand side.

It consists of eight limestone blocks, five arranged in two parallel rows, the other three possibly fallen cover-stones;

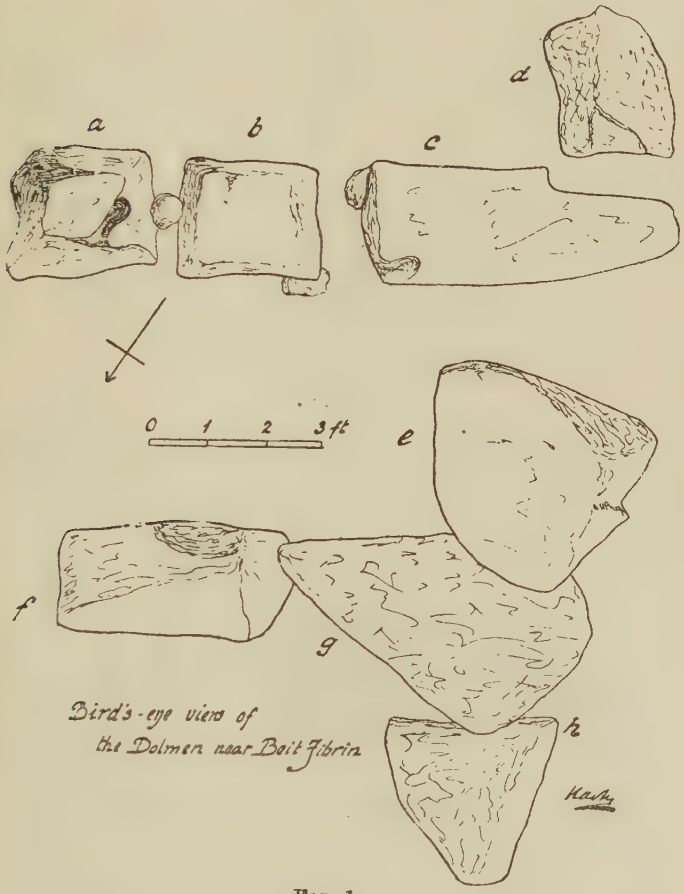


FIG. 1.

though, owing to their small size compared with the space to be roofed, this is questionable. Their general appearance and disposition can best be understood by reference to the accompanying sketches.

This dolmen differs from all other structures of the class I have ever seen, in being erected on an almost completely bare surface of rock; none of the stones are set in earth. If it was sepulchral the body must have been laid on the rock surface between the rows of stones.

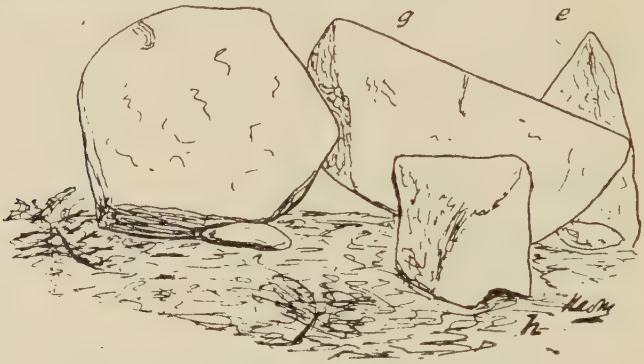


FIG. 2.

In order to facilitate reference from one drawing to another every stone is indicated by an index letter, which is repeated in each of the drawings.

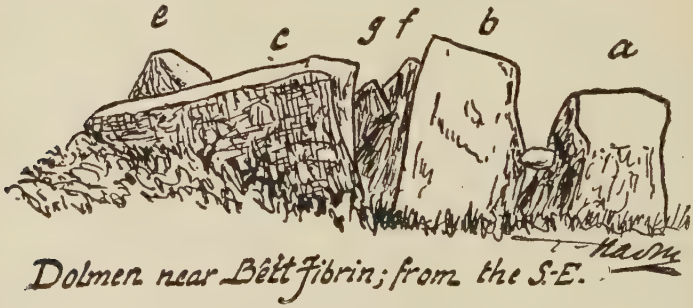


FIG. 3.

Dimensions of the Constituent Stones (height in each case given first).—(*a*) 3′ 6″ × 2′ 5″ × 2′ 1″; (*b*) 4′ 2″ × 2′ 5″ × 1′ 11″; (*c*) 3′ 2″ × 4′ 5″ × 2′ 10″; (*d*) 2′ 8″ × 3′ 0″ × 2′ 7″; (*e*) 3′ 6″ × 3′ 5″ × 2′ 10″; (*f*) 4′ 0″ × 2′ 5″ × 2′ 3″; (*g*) 3′ 4″ × 4′ 5″ × 3′ 10″; (*h*) 2′ 0″ × 2′ 10″ × 2′ 0″.

THE ROCK-CUT TOMBS IN WÂDY ER-RABABI, JERUSALEM.

By R. A. Stewart Macalister, M.A.

In the following article an attempt is made to give a fuller description of the series of tombs in the so-called Valley of Hinnom than has hitherto been printed. A catalogue of them is to be found in Tobler's *Topographie von Jerusalem und seinen Umgebungen*, illustrated by conventional diagrams representing the disposition of chambers and graves; but this is not wholly satisfactory, and most of the inscriptions are incorrectly given. The plans and descriptions contained in the present notice have all been prepared from observations freshly made on the spot, while the transcripts of the inscriptions are the result of many examinations, both of the originals and of squeezes or rubbings in various conditions of lighting. These inscriptions have heretofore been published in printed copies, or in facsimiles of eye-copies—the latter a proceeding worse than useless—and I have therefore considered it advisable to prepare facsimiles of each one (except the fragmentary No. 12) in illustration of this paper. In the case of incised inscriptions these facsimiles have been reduced from squeezes or rubbings by the method of squares; the representations of painted inscriptions are copies of measured drawings made directly from the originals.

The kindness of friends in Jerusalem, who have from time to time rendered me valuable assistance, has materially lightened the labour of this work. Before proceeding further I desire to express my acknowledgments to Dr. Schick, for giving me access to books in his library; to Miss Gladys Dickson and Mr. C. Hornstein, for making the necessary measurements and observations and in preparing some of the squeezes and rubbings of inscriptions; and to the Rev. Pères Lagrange and Vincent, of the College of Saint-Étienne, for their invaluable criticisms upon my readings of the inscriptions. I have endeavoured to give due credit to these eminent epigraphists for every emendation due to them; when my readings have the support of their approval, I put them forward with all the more confidence.

It seems more convenient to discuss the inscriptions and the tomb-chambers separately, as attention is thereby not distracted

from epigraphic to architectural details and *vice versâ*. This paper is accordingly divided into two parts, of which the first is devoted to the inscriptions, the second to the excavations.

1. The Inscriptions.

The following catalogue will be found to comprise all the epitaphs hitherto reported from Wâdy er-Rababi with the exception of: (1) an inscription in square Hebrew letters, somewhere at the western end of the valley, reported and copied by Robinson; (2) certain Hebrew inscriptions of no great antiquity, mentioned by Tobler as having been destroyed shortly before his visit to the valley, and (3) the Armenian inscription in the so-called "Aceldama" charnel-house. Of these there is no trace now to be seen. On the other hand, inscriptions Nos. 8 and 15, in the present list, previously reported as lost, have been found to be still *in situ*, and are given in their proper place below, while Nos. 12, 13, and 14 appear to be now printed for the first time. The inscriptions (as well as the tombs in the second part of this paper) are given in order from west to east.

1. (Plate 1).—At the left side of the entrance of a single-chambered tomb:—

+ΤΗϹ ΑΓΙΑϹ | ϹΙѠΝ

in incised letters picked out in red. The rock is much abraded and weather worn, and the letters are difficult to make out. The chisel and weather-marks in places assume a very letter-like appearance. Tobler thought he saw an Є in a line above the first line of writing, and I myself was half-persuaded at first sight that I could make out ··]ΦЄΡΟ[···: so difficult is it to dissociate the impression on the mental from that on the bodily eye. But the initial cross prevents our accepting any writing in this portion of the rock-surface. Over the doorway is a large plain equilateral cross.

In a small broken tomb to the east of that containing the above epitaph are a series of chisel marks, exactly simulating the appearance of two short lines of writing; these are quite meaningless.

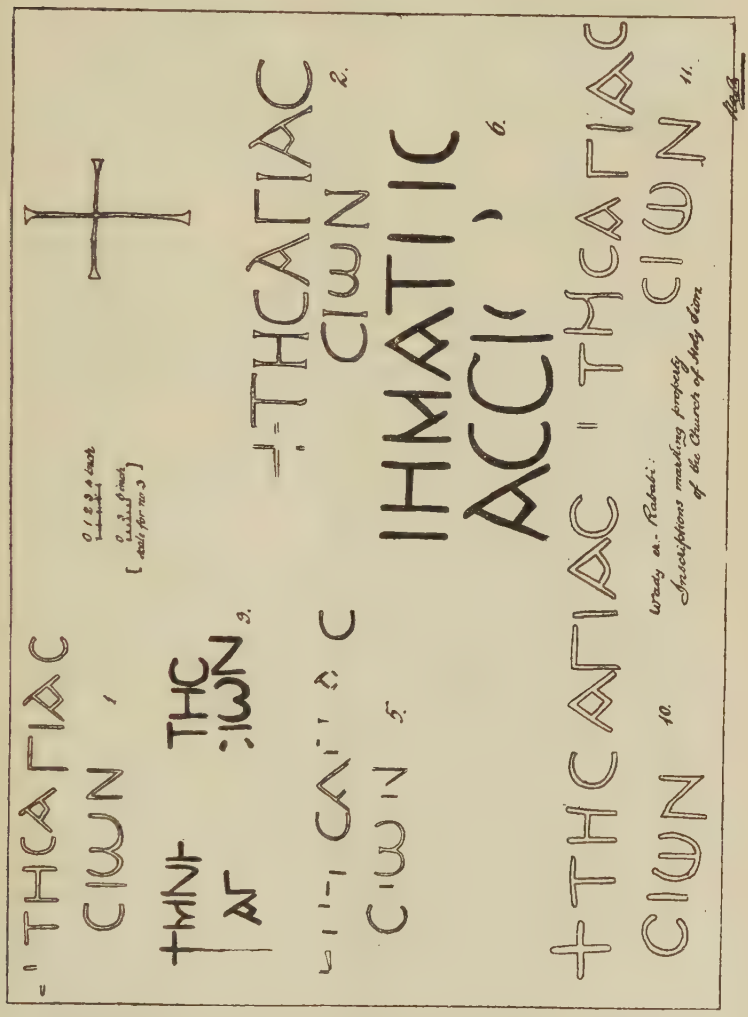
2. (Plate I).—Over the entrance of a three-chambered tomb beside the road leading southward from Neby Daûd:—

+

+ΤΗϹ ΑΓΙΑϹ | ϹΙѠΝ

incised in beautifully-formed capitals. Both crosses have intentionally been defaced by hammering.

Plate I.

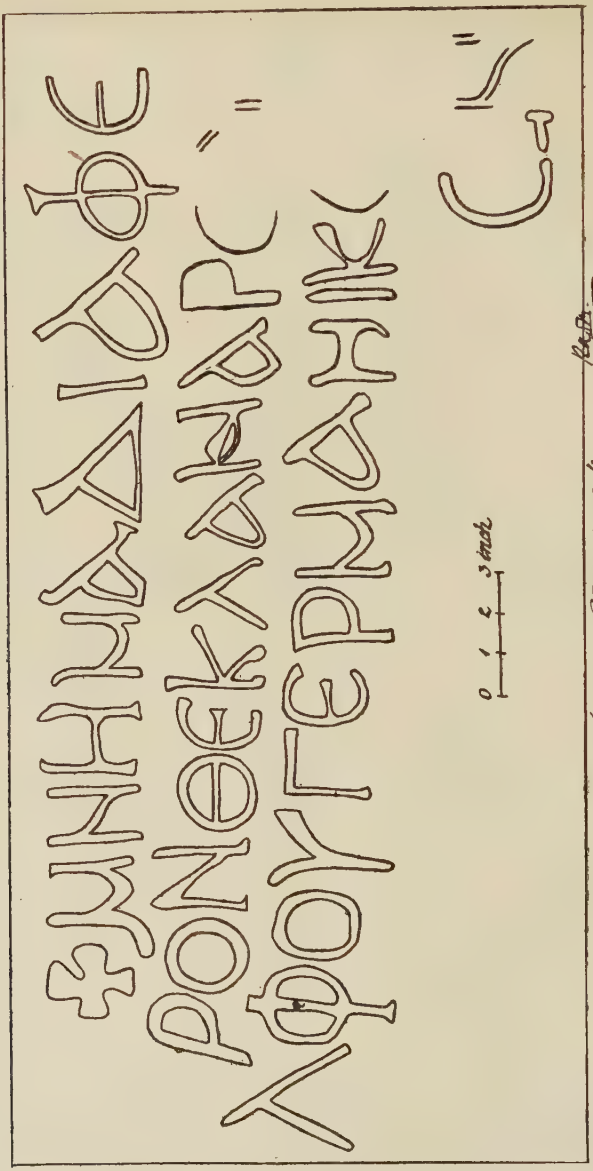


3. (Plate I).—Over the doorway leading from the first to the second chamber of the same tomb:—

+MNH[μα] THC | AΓ[ιας σ]IWN

in bold red letters. The red paint has trickled down from the foot

Plate II.



of the initial cross, leaving a long narrow streak. The effaced letters have been washed away by water dripping through the porous limestone.

4. (Plate II).—Over the doorway of a tomb approached by rock-cut steps, north of the last. This inscription has long been a theme of contention; it was originally engraved in crowded letters, and has become much weather-worn, especially at the ends of the lines of writing. The first line, and the commencement of the second, are accepted by all as reading +MNHMA ΔΙΑΦΕ | PON; after which are many differences of opinion, which may thus be tabulated :—

ΘΕΚΑΛΙΨΡΕ	ΛΦΟΥ	Scholz (reported by Tobler).
ΟΕΚΛΑΝΑΔ	ΑΦΟΥ	Berggren ,, ,,
ΘΕΚΑΑΝΔΡΟΝ	ΑΦΟΥ	Krafft ,, ,,
ΘΕΚΛΑΜΑΡΟΥ	ΛΦΟΥ	de Saulcy and Germer-Durand.
ΘΕΚΑΑΜΑΡΟΥ	ΛΦΟΥ	Tobler.
ΘΕΚΛΑΜΑΡΕΥ	ΛΦΟΥ	de Vogüé and Conder.

after which all read ΓΕΡΜΑΝΙΚΗ | C, except de Vogüé and Conder, who have recognised the N that follows the final C in the fourth line.

In endeavouring to choose among all these differences of opinion, we must notice first that a want of epigraphic perception is displayed by those who have confused the A's and Λ's. This inscription is peculiar in the whole series because of the uncial form of some of its letters, noticeably its A's, which are all made thus, Δ, and should not be confused with Λ. This lays aside all readings that do not give ΘΕΚΛΑ . . . | ΛΦΟΥ. After ΘΕΚΛΑ all the later copyists give MAPOY, except de Vogüé and Conder, who read ΕΥ at the end. There is, however, no sign of the cross-bar of the Ε, and the termination -ΟΥΛΦΟΥ (= wulf) looks much more feasible in a German's name. For that the word following the name is ΓΕΡΜΑΝΙΚ- is certain; the weathered termination alone is ambiguous. I can see the marks read H by all my predecessors, but to my eye they seem rather weather than chisel marks; while on the other hand a curved line can be traced after the K, which would suggest the more natural reading ΓΕΡΜΑΝΙΚΟΥ. Of the Υ nothing is to be seen, but there is room for it. There were certainly no letters engraved before the C in the fourth line; between it and the N is a small mark resembling a ⊣, probably a mark

of abbreviation, for C-N can hardly mean anything else than CIΩN.

One difficulty alone remains. I cannot persuade myself (though I am thereby opposed to the best of the epigraphists who have published copies of the inscription, as well as to the Dominican Fathers who have helped me with their advice) that the initial of the name following ΘΕΚΛΑ is not N rather than M. The accompanying facsimile, prepared from a squeeze checked by drawings of the doubtful letters made from the original, will show the nature of the difficulty: there are fractures which may be taken as either chisel or weather marks, and which will favour either reading. While the epigraphic evidence, drawn from a careful comparison of all the M's and N's, in the inscription with the ambiguous letter seems to favour the reading NAPOYΛΦOY, it must be admitted that the philological evidence is opposed to this reading. A doubt as to the existence of such a name as Narulf, first suggested to me by Père Vincent, has been confirmed by the kindness of Professor Skeat of Cambridge, whom I consulted on the subject. He writes: "I do not think there is any such name as *Narulf*, or any prefix *Nar-* with which it can be connected. *Marulf*, on the other hand, occurs; the true and older spelling is *Mærwulf*, and it is compounded of two common elements, namely, *mær*, equivalent to the Anglo-Saxon *mære*, 'illustrious,' and *wulf* 'a wolf.'" Under the circumstances, the reading *Narulf* can be explained only as the incorrect reproduction by the native carver of an imperfectly heard and unfamiliar foreign name. On the whole, therefore, my reading is *Μνῆμα διάφερον . Θέκλα Ναρούλφου Γερμανίκου . Σιών.* "Private tomb; Thecla, daughter of the German Narulf [for Marulf] . [Tomb of the Church of] Sion."

This memorial of a wandering Teutonic family cannot but be regarded as of singular interest.

5. (Plate I).—On the left side of the entrance to a tomb south of the road from Neby Daûd:—

+THC A[γ]IAC | CIΩN

in incised letters; much damaged. Tobler incorrectly inserts MNHMA before THC.

6. (Plate I).—On the right side of the entrance to the same tomb:—

[+μν]HMA THC | [αγι]ACCI]ων]

in bold red painted letters. These are worn and defaced. The cutting of holes in the wall of the tomb has injured both inscriptions.

7. (Plate III).—Over the entrance of a tomb on a lower level than that of the others. This inscription has long been recognised as a crux. Schultz's reading, accepted by de Vogüé and printed also in the Jerusalem volume of the "Survey of Western Palestine," runs: + ΜΝΗΜΑ ΔΙΑΦΕΡΟΤΗΝ | ΑΦΟΥ ΡΟΜΗC ΑΓΙΑC CΙΩΝ. This is unsatisfactory Greek, and as Père Germer-Durand[1] justly remarks, the ΑΦ at the commencement of the second line existed in his imagination only. The latter skilled epigraphist ingeniously suggests *Μμῆμα διάφερο' τῶν θυρόρ[ων ἁ]γιας Σιών* ("Private tomb of the gate-keepers of Holy Sion"), which is most attractive; but after frequent and prolonged examinations, I must regretfully dissent from this solution of the enigma. The first line is certainly +ΜΝΗΜΑ ΔΙΑΦΕΡΟΤΗΝ. The peculiar A's will not escape notice. Père Germer-Durand admits that the penultimate letter is now an H, but he considers it to have been turned into this from an original Ω in some unskilful restoration of the letters. The final ΤΗΝ is certainly thin and wiry as compared with the rest of the characters, as though by another hand; but I can trace no certain corroboration of Père Germer-Durand's theory.

In the second line I cannot regard the first letter as anything but O. Here, again, I have the authority of my friends Pères Lagrange and Vincent against me, for they agree with Père Germer-Durand in reading Θ. The mark they consider as a cross-bar is a natural flaw in the stone, extending, as will be seen from an examination of the facsimile, far beyond the letter on each side, and crossing the circle of the letter rather above its centre. I have made a minute examination of the portion of the flaw intercepted within the circumference of this circle, and have failed to detect any certain sign of chiselling upon it. The following letters, ΥΡΟΡ, are perfectly distinct; after this comes the upper portion of Υ, or (as Père Lagrange has suggested to me) of Ȣ (*ου*). The bottom half of the letter is scaled away, and a fracture wide enough to hold two letters follows it. After this is ΓΙΑC CΙΩΝ, which would be immediately accepted as the

[1] "Epigraphie Chrétienne de Jérusalem," in "Revue Biblique," vol. i, p. 560.

greater part of ἁγιας Σιών, were it not that under the free end of

Plate III.

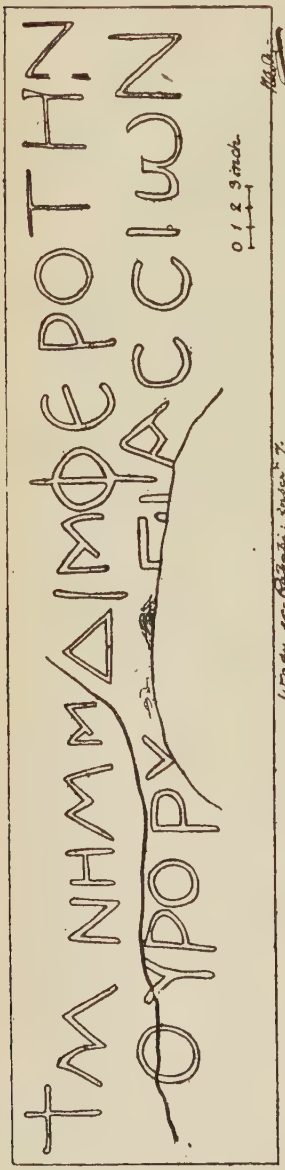
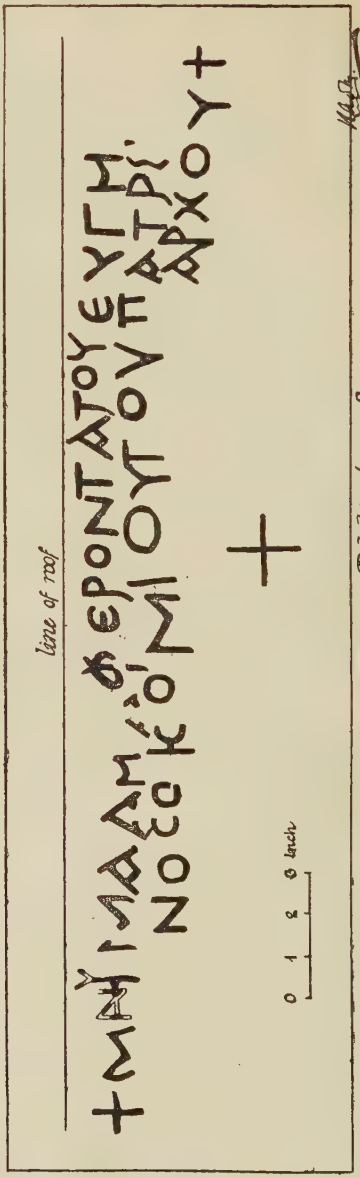


Plate IV.



the horizontal bar of the Γ there is a short vertical line, giving

the whole the appearance of a Hebrew ה reversed, so that the character might possibly be a Π.

My transcript, therefore, runs as follows :—

+ΜΝΗΜΑΔΙΑΦΕΡΟΤΗΝ | ΟΥΡΟΡ$\frac{υ}{ου}$ × × $\frac{γ}{π}$ΙΑCCΙΩΝ

There seems to be no noun for *τήν* in line 1, taken as the article, to agree with ; and I can see no admissible alternative to regarding *Μνῆμα ἑιαφερότην* as an extraordinary barbarism for *μνῆμα ἰδιάφερον*. As in all the other tombs marked as "private" the owner's name is given, I am inclined to regard *Ὀυρόρου* as a proper name : it defies all attempts to analyse it into Greek words. If we might read *θ*, the word would certainly be *θυρωροῦ*, "door-keeper," but this seems to me impossible.

8. (Plate IV).—This is another difficult inscription. In this case the difficulty is increased by the faintness of the lettering : it is painted on an exposed surface of rock and has suffered much from the weather. Careful wetting is required to bring out the writing ; this should be done with caution, as (*pace* Tobler) the red paint is not quite impervious to water, and is apt to be injured in the process.

The reading here given is partly due to Père Lagrange, who determined the true interpretation of the concluding letters. The shapes of the different characters as shown in the facsimile were obtained after repeated examinations of each letter separately.

The very inaccurate copies published before the inscription was lost sight of need not be referred to. It should, however, not be overlooked that no small credit is due to Père Germer-Durand for deducing from them the word *νοσοκομίου*, which actually exists in the epitaph.

The reading finally approved by Pères Lagrange and Vincent is as follows :—

+ΜΝΗΜΑ ΑΜΑΦΕΡΟΝΤΑΤΟΥΕΥΓΗ
ΝΟCΟΚΟΜΙΟΥΤΟΥΠΑΤΡΙ
ΑΡΧΟΥ+

—the only character for which I am solely responsible being the final cross, which I found on examining the inscription after their visit. Several suggestions for the interpretation of the legend—all more or less unsatisfactory—have occurred to me.

(*a*) As it stands the inscription seems to fall into words thus :

Μνῆμα ἅμα φέρον τὰ τοῦ Εὐγη . . . νοσοκομείου τοῦ πατριάχου, "Tomb at once bearing the [names?] of E. of the hospital of the patriarch." The sense is incomplete; some noun, such as *'ονόματα*, seems required after *τά*, and a second owner seems to be postulated by the word *ἅμα*.

(*b*) These difficulties may be evaded by regarding the *μ* in *ἅμα* as really an *ν*; as the facsimile shows, this is just barely possible. The *τά* can be got rid of by treating *ἀναφέροντα* as a barbarism for *ἀνάφερον*, taken in the general sense of *διάφερον* (like *διαφερότην* in the previous inscription). It may, however, be justly asked whether such violent measures are legitimate.

(*c*) Again, we are not justified in reading Εὐγη . . . and treating it as an imperfect name. The surface of the stone has been scraped immediately after the H, but the right vertical bar of that letter has survived the ordeal, and there is no reason why traces of other letters, if they ever existed, should not still be seen. In any case the length of space available is only 1 foot 5 inches, which would not hold more than five more characters. The *νοσ-* at the commencement of the second line supplies a termination; but that is at the expense of *νοσοκομείου*, unless we are to assume these three letters iterated (like the numismatic Edgarex = Edgar rex). The anacolonthon *τοῦ Εὔγηνος* need not distress us, as it is evident in any case that the inscription was painted carelessly. The writer evidently omitted the *ν* or the *η* of *μνῆμα*, and was constrained to insert it afterwards by making an awkward ligature.

The alternative readings (besides that already mentioned) are therefore:—

(1) Private tomb of Eugenos of the hospital of the patriarch.

(2) Private tomb of Eugenos son of Komios, the patriarch [*μνῆμα ἀναφέροντα τοῦ Εὔγηνος ὁ Κομίου τοῦ πατριάρχου*. There does not appear, however, to be any record of such a patriarch].

9. (Fig. 1).—This inscription was first published by Père Germer-Durand in the paper already referred to. It is peculiar as being incised on the face of a bench tomb inside the chamber, not outside as are all the others. It runs—

ЄΤΑΦΗΤ . ΥЄΚΟСΤ . | ΠΑΧΟΜΙΟСΛΙΨΗ +

The accompanying cut shows the forms of the letters and of the final ligature. Père Germer-Durand's reading is *ἐτάφη τῇ* Ч

εἰκοστῇ Παχώμιος Λυκάβαντος ψνή [*sic*, query ιψή]—"Pachomios was buried on the twentieth day of — month, in the year 758" [rectè 718]. For the use of the abbreviation Λ, and for the inversion of the date-letters, an exact parallel is afforded by an inscription from Damascus reported in the "Revue Biblique" for January, 1900, p. 92. But to me the insertion of the proper name in the middle of the date seems a difficulty. My own reading I prefer to withhold till after the discussion of another inscription in the cemetery, which seems to me to offer a parallel to it.

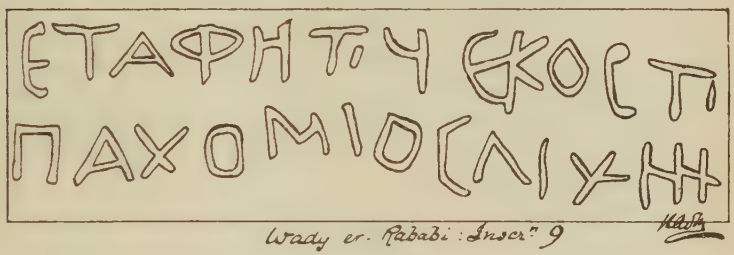


FIG. 1.

10, 11. (Plate I).—Over the doorways of two tombs close to the Aceldama Monastery—

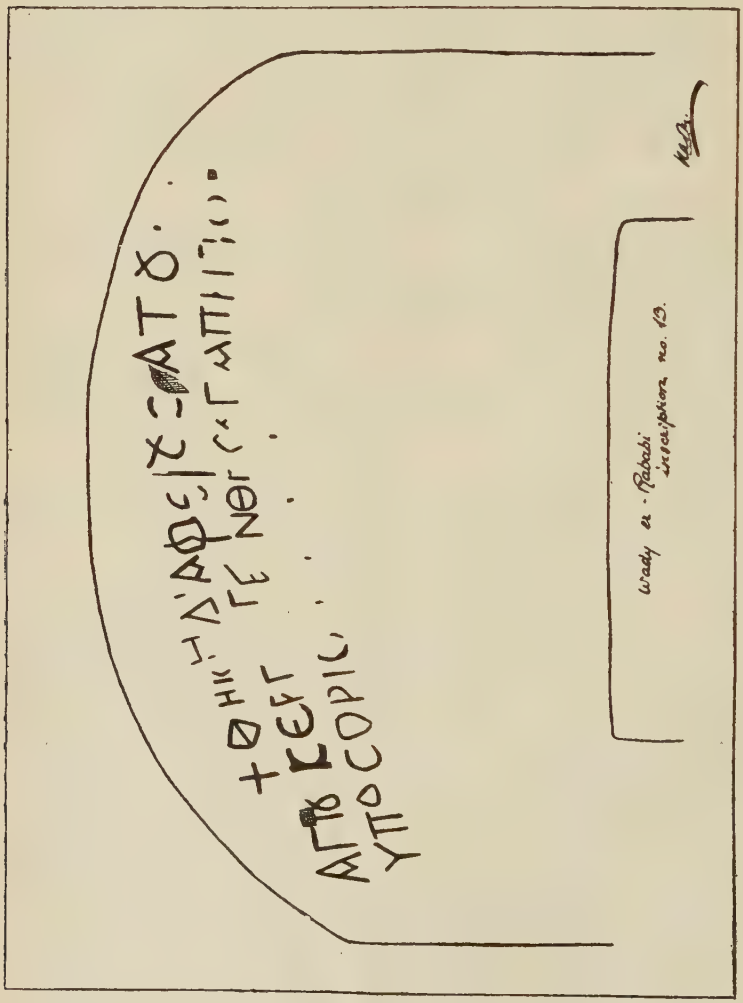
+THC AΓIAC | CIωN

These are the last of the six excavations appropriated "to the Holy Sion" (including in the reckoning that bearing the inscription numbered 7). The Church of the Holy Sion seems to have stood on the site of Neby Daûd, and to have held these tombs in its own possession. As Père Germer-Durand remarks in the paper to which I have already referred, "we must set aside the extraordinary interpretation given by Volney, who was desirous of finding there [*i.e.*, round the tombs] the mountain of Zion, because it was written several times on the rocks; and also that of the mystics who saw in this expression a reference to the heavenly Jerusalem to which the tomb would furnish the door."

12. Over the door of a tomb inside the Greek monastery is an inscription painted in red letters; it has been, however, not only washed away by weather, but also hacked away intentionally. So little remains that I did not think it worth while preparing a facsimile. The writing seems to have been in four short lines, in large bold capitals; probably the inscription, like No. 15, was

divided into two columns by a central cross. There seem also to have been large crosses at each corner of the inscribed surface. The only decipherable letters are **AC** at the end of the inscription,

Plate V.



preceded by a doubtful **O**, and a still more questionable **B**. The cross-bar of the **A** is angled as in most of the other inscriptions.

13. (Plate V).—Over the doorway of a tomb immediately east of the monastery :—

+ΘΗΚΗ ΔΙΑΦΕΡϐCA Τϐ
ΑΓΙϐ . . . . . ΑΓΑΠΗΤϐ
ΥΠΟ . . . . . .

painted in red letters. The characters are faint, and very nearly the same colour as the stone, which seems to be stained in patches with iron oxide. After several hours' work on different days, I have been compelled reluctantly to abandon as hopeless any attempt at filling up the blanks. The legible portions call for no comment, save that the *ὑπό* in the third line is especially tantalising, as it suggests that some topographical information may once have lain concealed in this inscription.

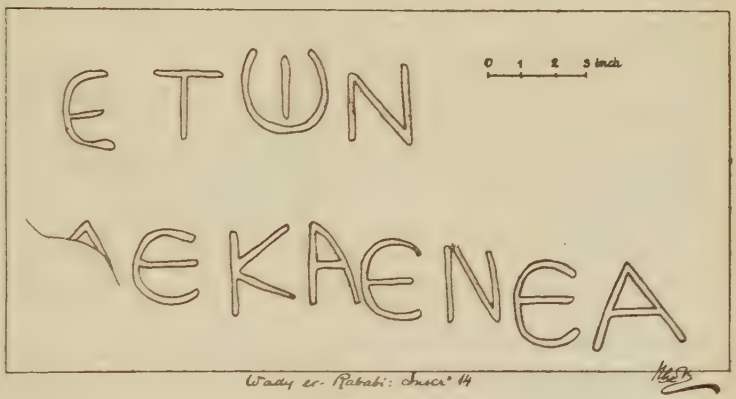


Fig. 2.

14. (Fig. 2).—This inscription, which is incised on the wall of the same tomb as that displaying the last-noticed epitaph, was discovered by Père Vincent when in my company he examined these inscriptions. Unfortunately, it has nearly all been quarried away, and nothing is left but ΕΤΩΝ | ΔΕΚΑΕΝΕΑ, which is apparently meant for "nineteen years." As the sense is continuous, we must, I think, regard this as the second column of an inscription divided in two by a cross, all of which has, however, disappeared.

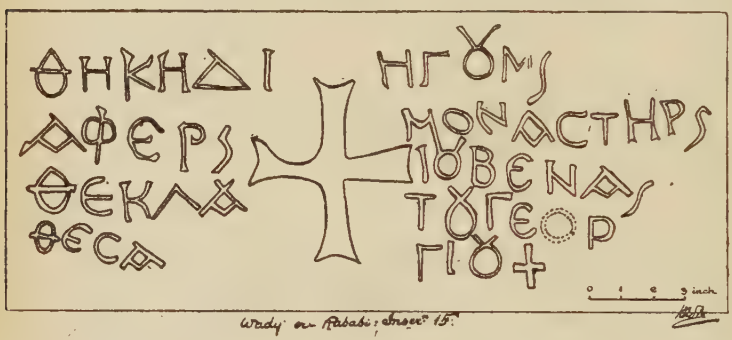
15. (Plate VI).—Over the western door of a group of tomb-chambers ranged round a vestibule, overhanging the valley a

little east of the monastery. The letters are incised in minute characters, and are obscured by smoke-blackening, but all are decipherable with a little patience, as follows :—

ΘΗΚΗΔΙ		ΗΓϬΜ'
ΑΦΕΡ'		ΜΟΝΑCΤΗΡ'
ΘΕΚΛΑ	+	ΙϬΒΕΝΑ'
ΘΕCΑ		ΤϬΓΕΟΡ
		ΓΙϬ'

that is, *Θήκη διαφέρουσα-Θέκλα θέσα ἡγουμένη μοναστηριόν Ιουβεναλιου τοῦ Γεοργιόυ* ; " Private grave ; Thecla *θέσα*, abbess of the monastery of Juvenal of George." Two words call for comment here, *θέσα* and *Ιουβενα'*.

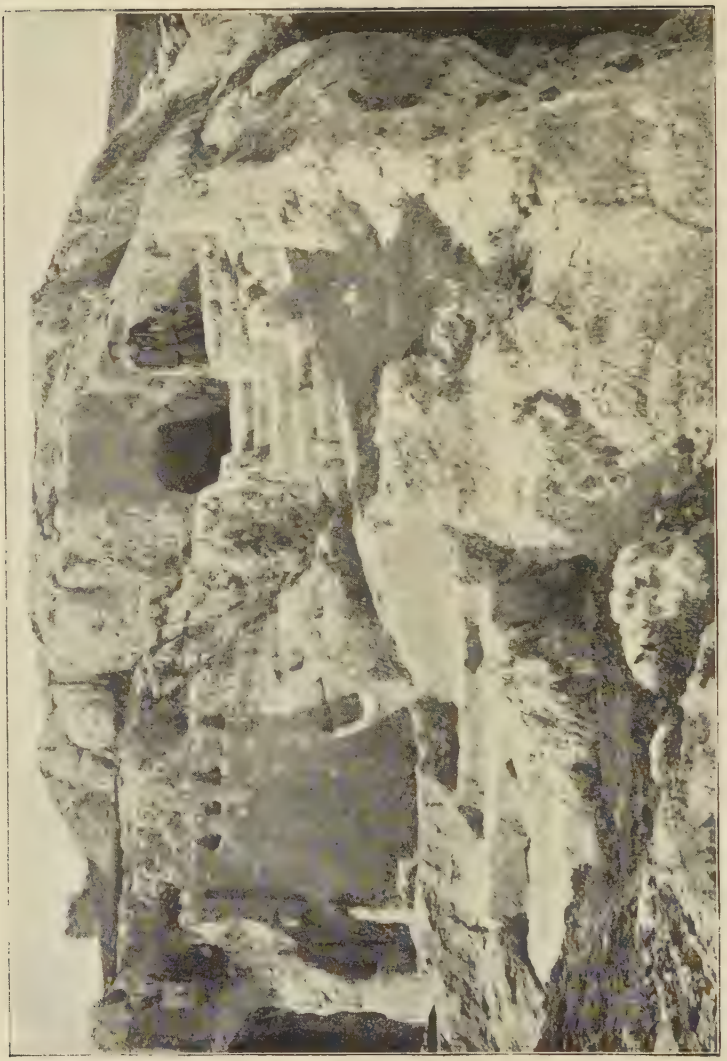
Plate VI.



Passing for the moment over *θέσα*, I proceed to give Père Lagrange's interpretation of *Ιουβενα'*, which would have completely puzzled me without his help. In a letter to me on the subject he writes :—

"Je continue à croire que le ΙΟΥΒΕΝΑ' que nous avons lu hier dans l'inscription tombale que vous avez retrouvé, cache le nom du célebre patriarche Juvénal, et que par conséquent le monastère qui portait son nom ne devait pas être tres éloigné du lieu de ce tombeau. La question de ce monastère a pris un nouvel intérêt depuis la publication des Plérophories de Jean, évêque monophysite de Majuma ('Revue de l'Orient Chrétien,' 1898, pp. 232–239, 337–392). Il y est question (§ xvi) des ruines du monastère où Juvénal était moine avant son élévation à la dignité patriarcale. M. Clermont-Ganneau ('Recueil,' p. 227, tome III) a tiré de ce passage d'intéressantes conclusions sur

(*To face p.* 239.)



ENTRANCE TO THE TOMB OF THECLA.

le lieu où Judas se serait pendu. Les ruines du monastère se trouvaient 'sur la route allant de Siloé dans la vallée, jusqu'aux coteaux environnants, à gauche du chemin.' M. Clermont-Ganneau a cru que cette route partait de la piscine de Siloé pour remonter au nord la vallée du Cédron en se tenant au bas de la ville. Mais ce peut être aussi la route qui remonte le Ou er-Rababi, dans la direction de l'ouest. Le tombeau est précisément à gauche de ce chemin près de l'endroit traditionnel d'Hakeldama. Je demeure cependant que l'inscription ne peut être aussi ancienne que les Plérophories (512–518) de sorte que le monastère de Juvénal a dû être ensuite relevé de ses ruines."

The following is a translation of the passage referred to:—

"When I was living at Jerusalem, I followed one day the path which leads from Siloam, in the valley, to the surrounding hills. One of the chief men of the town, who knew all the neighbourhood, was with me. Looking toward the left side of the way, I saw at the foot of the mountain, on that side, a large monastery destroyed and ruined: all round were many different trees, some withered, the others rooted up; and thorns and vines grew there as in waste places. Then, full of amazement, I said to my companion: 'How came it that all these monks have departed from Jerusalem, and were forced to find new retreats, to buy and build monasteries and rest-places, while all these buildings were allowed to fall into ruin?' He answered me: 'This monastery is that of Juvenal; there they went to seek him to make him bishop; then, after the Council of Chalcedon, this monastery, contrary to all expectation, and as though as a result of God's judgment, became ruined and abandoned as you see it, and no one could inhabit it.' I said then, full of amazement: 'In truth, Juvenal is the companion of Judas, as the blessed Dioscorus says; that is why the place has inherited the curse on Judas, of whom the inspired writer says: "may his habitation be desolate and let no one dwell in his pavilion."'"

If, as Père Lagrange supposes, the ruined monastery was at some time rebuilt, and this inscription is a monument of its second period, the sex of the person commemorated suggests that it was turned into a nunnery. But the relation of the inscription, and of Abbess Thecla, to the ruined establishment described in the extract just quoted are so obscure that we must await fresh discoveries to enable us to understand them fully. It will

generally be agreed that Père Lagrange is right in assigning a later date to the inscription than that of the above description.

For collecting for me the following facts respecting Juvenal, which requires access to a larger library than is at my disposal at present, I am indebted to my father, Professor Macalister, of Cambridge.

The date of his succeeding Praylius as Bishop of Jerusalem is uncertain; he died A.D. 458[1] after holding office for 34 years (Bollandus), or 38 (Eutychius), or 40 (Tillemont), or 44 (Cyril of Scythopolis). Leo Magnus describes him as a turbulent and time-serving man, whose ambition was to raise the See of Jerusalem to the level of that of Rome. He claimed to take precedence of the Patriarch of Cæsarea; the Second Council of Ephesus allowed the claim.[2] Here he took second place. At the Third Council (the "latrocinium") he was third in rank on account of the order of Theodosius,[3] coming immediately after Julius, Bishop of Puteoli, the papal legate. At the Council of Chalcedon his claim of jurisdiction over Phœnicia and Arabia was disallowed; but he was permitted metropolitan jurisdiction over Palestine.

Leo the Great, in a letter to Anatolius (Ep. LXXX), refers to his removal from the list of the orthodox on the Diptychs at Rome for suspected heresy. In Ep. CXIX he speaks of him as a user of forged documents and generally unworthy. On the other hand, Basil of Seleucia speaks of him in high terms (Oratio XLI). At the Council of Chalcedon he went over to the side of the Eastern Church and deserted the Western, but he afterwards returned, and after a short time was driven from Jerusalem by a popular rising under a fanatic monophysite monk named Theodosius.[4] (It is not impossible that his monastery was destroyed in this rising.)

What then is *θέσα*? The letters of this word are cramped and difficult to read, and I did not arrive at a final conclusion as to their decipherment till after I had consulted the Dominican Fathers. The only result of our joint deliberation on this part of the inscription was that the published reading, *σεβα*, is quite inadmissible. This reading, therefore, rests on my own responsibility; but I feel pretty sure of it, as I carefully considered each

[1] Tillemont, "Memoirs pour servir a l'histoire ecclesiastique des six premières siècles," xv, 867.

[2] Labbe, iii, 455.

[3] Labbe, iv, 109.

[4] Cyril of Scythopolis, Life of St. Euthymius.

WADY ER-RABABI TOMBS

PLANS

Martin, Hood & Larkin, Photolitho, Gt. Newport St. W.C

letter, and weighed all possible decipherments separately. It is clear that it must be taken as a separate and a complete word in itself. For the sense is disturbed if we regard it as an intrinsic part of either the preceding or the following word; and that it is not an abbreviation is demonstrated by the absence of the mark of contraction plentifully sprinkled over the inscription elsewhere, for which there would here be ample room. The latter consideration prohibits such an expansion as *θησαυρόφυλαξ*, which was my first idea. There is no such word as *θέσα*, and so far as I can see it can stand only for *θεῖσα*, which makes nonsense; or *θῆσσα*, "a female menial." The latter I take to be the interpretation. I regard it as an appellation of humiliation, adopted in self-depreciation by the person commemorated. Some very curious examples of such "names of humiliation" have been collected. The spirit which prompted their use is exemplified by the seventeenth-century Archbishop Harsnett, who describes himself in his monument at Chigwell, in Essex, "out of his unbounded humility," as "the most unworthy Archbishop of York."

The construction in which the words *τοῦ Γεωργίου* are to be taken is a little uncertain. Either we must assume that Juvenal's monastery was dedicated to St. George—for which there seems to be no other evidence—or else, having regard to the fact that the first three lines in the two columns make complete and satisfactory sense by themselves, we must read the remaining words apart, and interpret *θῆσσα τοῦ Γεωργίου* as implying that Thecla considered herself in some special way devoted to the cultus, or under the patronage of St. George.

Let us now return for a moment to the Pachomios inscription (No. 9), and re-examine it in the light afforded by the epitaph of Abbess Thecla. For here, too, I think an expression of humiliation is to be detected. In analysing the upper line, the word *ἐτάφη* separates itself at once; it is followed by a symbol resembling a T followed by a dot. The same symbol, slightly modified by a natural crack which connects the dot with the end of the crossbar of the T, occurs at the end of the line. Let us try the effect of regarding these marks as word-separators: the reading then follows naturally and grammatically—

ἐτάφη ὑεκὸς
Παχόμιος λ. ιψή +

The word ὑεκός, "swinish," cannot be anything else than an expression of self-depreciation.[1]

II.—The Tombs.

We now return to the western end of the valley, and proceed to an examination of the tomb-chambers themselves. I have omitted two or three near the Birket es-Sultân because they are now used as dwellings. The following enumeration commences near the site of the British Ophthalmic Hospital, and proceeds eastward to Bîr Eyûb:—

1. (Plan I).—A small tomb with a single chamber. The interior is much corroded by the decay of the stone, so that exact measurements are of no value. The opening faces northward: this is a passage 5 feet long, 2 feet across, with arched roof. There seem to be steps in the floor, which, however, are concealed by the earth. There are arcosolia on three sides. The maximum height of the chamber above the *débris* covering the floor is 5 feet. This is perhaps the *Kämmerlein für ein Grab*, reported by Tobler as the sole survivor of the tomb in this part of the valley.

2. (Plan II).—Two chambers arranged with their axes at right angles to one another. The door-ends of both are quarried away, so that it is impossible to trace their original connection. The first chamber is 8 feet 9 inches by 9 feet, and is 3 feet 6 inches high. This has no feature calling for notice. The second chamber is 10 feet 5 inches by 11 feet 3 inches. In its floor are two sunk tombs, now full of earth. At the end of the chamber is a small ossuary (?) apartment, 6 feet 9 inches by 3 feet 4 inches. A fracture in the floor near the corner at the junction of the two main chambers shows that there is a lower room (or, perhaps, a natural hollow in the rock), but it is blocked with *débris*, and nothing can be said of it.

3. A small chamber, much ruined, 9 feet 5 inches by 6 feet 4 inches, close to the first chamber of No. II, but not apparently connected with it in any way. No graves.

[1] On this subject *see* a paper by Edmond Le Blant, entitled "Recherches sur quelques noms bizarres adoptés par les premiers Chrétiens" ("Revue Archæologique," new series, vol. x, p. 4 [1864]).

4. Section of a tomb destroyed by quarrying. The remaining portion apparently consists of a loculus 7 feet long, running from the corner of a small chamber.

5. Section of a chamber of which the northward side has been quarried away. It was 8 feet east to west, 6 feet 3 inches north to south. One much damaged bench tomb remains on the south side, and there seems to have been another opposite it. In the western end is a doorway 2 feet 5 inches high, 2 feet across, giving access to a small square cell, probably an ossuary, 3 feet 6 inches by 3 feet 3 inches on plan; the floor is cumbered with rubbish, and the original height reduced to 3 feet 4 inches. This is the tomb whose wall bears the pseudo-inscription already mentioned. One jamb of the entrance remains, facing eastward; it is revealed on the inside and has a bolt hole.

6. A very small and awkward chamber, under a projecting ledge of rock, with a yet smaller cell at its end. It is blocked up with stones and rubbish.

7. (Plan III; Tobler, 22).—A single rectangular chamber approached by a round-topped doorway, splayed and revealed on the outside. The doorway is recessed within an open vestibule of small dimensions; only a small fragment of the roof of this vestibule remains. Inside the chamber, on the right, is a doorway that gives access to a passage running parallel to the main axis of this chamber; it extends for a length of 5 feet 10 inches, and then stops abruptly, the excavators having broken through the rock, and being therefore obliged to abandon this part of the work. On the left side of the chamber is a vertical recess the height of a man, 1 feet 11 inches across, 10 inches deep. The exact height cannot be given, as the floor is covered with stones and rubbish. The southern side of the chamber is open, and communicates with a wider and lower annexe, which contains four bench tombs, one on each side and two at the end, separated by an uncut block of rock. In the floor are two sunk graves, now partly concealed with earth. In the south-west corner of the roof of this chamber the excavators again broke through the rock. There is a lamp-niche near the door leading to the passage above mentioned, but it looks fresh and modern.

Outside the door is inscription No. 1.

The above group of tombs are all situated in a plot of ground west of the old road leading southward from Neby Daûd. It is

now used as a cemetery by the Karaite Jews, and a few modern tombstones, inscribed in Hebrew, are scattered about. The following tomb (8) is in the bottom of the valley, under the precipitous southern rock wall. The four which follow are ranged along the west side of the road just mentioned :—

8. A group of small chambers consisting (*a*) of a single rectangular room with wide entrance much blocked with *débris*, and (*b*) an open vestibule, having a single *kok* or shaft-loculus on the eastern side, the entrance to a square chamber on the southward, and a side door to the chamber (*a*) on the westward. The rooms are all nearly inaccessible and not worth measuring owing to the accumulation of *débris* within them.

9. (Plan IV ; Tobler, 19 ; Baedeker, 22).—A series of three large chambers with (so far as known) two subsidiary apartments. There is much earth inside, and possibly other apartments may remain hidden. The entrance is sunk below the present level of the ground. The three chambers are rather irregular quadrilateral apartments; the north-east angle of the first chamber is rounded. In the ceiling of the south-east corner of the same room is a hole, apparently natural. Close to the north-west corner is a slightly raised block, covered with plaster, in the top of which is a hole 1 foot 5 inches by 1 foot, communicating downward with a small bell-shaped cell, now 4 feet 4 inches in height. Tobler regarded this as the water-store of a hypothetical hermit inhabitant of this cave; it is more probably an ossuary. The second apartment presents no feature of interest. The doorway between the second and third chambers is round-headed. In the northern wall of the third chamber is a niche, 1 foot 6 inches across, 1 foot 2 inches deep. In the floor of this chamber, in the north-east angle, is a rectangular opening 3 feet by 2 feet, leading downwards by steps to a small room 5 feet 6 inches by 5 feet, the floor of which is sunk 6 feet 4 inches below the floor-level of the third chamber. The first and second doorways are revealed for the insertion of doors, but in the first the reveal extends over the lintel only, not down the jambs. There are no graves visible in any of the chambers.

Over the outside of the entrance is inscription No. 2, and in the first chamber, over the door to the second, is No. 3.

10. (Plan V).—A single chamber immediately north of the above, filled with earth to almost 3 feet of the roof. It has

three entrances, one facing eastward, the other two facing southward. The eastern doorway is adapted for a turning door, the sweep of whose upper edge is cut in the roof. This door was bolted on the inside. The method of fastening for the two southern doors is a little doubtful; the indications seem to show that each was bolted independently, and further secured with a long beam crossing both. No trace of graves is to be seen in the visible portion of the chamber; and though owing to the accumulation of earth this is not a certain indication, yet combined with the internal fastenings of the doors, and especially the presence of horizontal water-grooves over the entrances on the outside, it suggests that the excavation under discussion may have been a dwelling rather than a tomb.

I do not know that there is any evidence for the establishment of permanent guards resident in important cemeteries or family tombs. If valuables were deposited with the dead, such a precaution would seem necessary: and there are one or two structural indications that some such step was taken in certain cases. A notable instance is the well-known "Tombs of the Judges." The outer fastening of this tomb was a door secured by a movable bolt running in a chase. Such a bolt could not possibly have been opened or fastened from the outside; there must have been a living person permanently within, and we are forced to conclude either that a guard was kept there by the family to whom the tomb belonged, or that it was at some time converted into a dwelling, and that the door-fastening was cut at the later period. Which hypothesis is to be accepted cannot be decided for lack of sufficient indications; but the presence in the Wâdy er-Rababi of a chamber, apparently a residence, with a number of doors unnecessary, except for the purpose of commanding a wide range of the cemetery, suggests that the guard theory is at least admissible.

11. To the north of No. 10 are the remains of a tomb, so much destroyed by quarrying and by the formation of an olive press and other vats (one of them plastered with *humra* plaster) in the rock, that the original plan can no longer be worked out. There is a sunk grave 5 feet 6 inches long, with the west end rounded.

12. (Plan VI; Tobler, 20; Baedeker, 23).—A winding staircase of 11 steps cut in the rock, leading up to the landing

in front of the door of this tomb, renders it conspicuous. The principal chamber is an irregular quadrilateral, 4 feet 8 inches in maximum height above the earth and stones now covering the floor.

The entrance doorway is roughly formed. It shows signs of having been fitted with a hanging door turning on a pivot fitting into a socket on the north side. There is no sign of a bolt-hole. Two steps, not centred with respect to the doorway, lead down from the threshold to the chamber floor. On the north side of the chamber is a bench tomb raised a few inches above the level of the floor, extending behind the steps mentioned; these steps would form the screen for the head of a body resting in this grave. A horizontal groove, especially noticeable at the head end, is cut into the wall; it was no doubt designed for the reception of a slab leaning on the edge of the steps and the foot of the grave, fulfilling the double purpose of a cover to the tomb and a shelf for a second interment. At the west end of the chamber is another tomb sunk in a raised bench, so that its bottom is probably about the level of the floor of the chamber; it is now full of earth. In the middle of the front of the bench is a large fracture. An opening in the north-west corner gives admission to the second chamber, which has every appearance of having been a natural hollow in the rock, slightly worked in order to adapt it for sepulchral purposes. It is very irregular, and shows but few marks of the tool. Its floor is about 2 feet below the level of the floor of the first chamber.

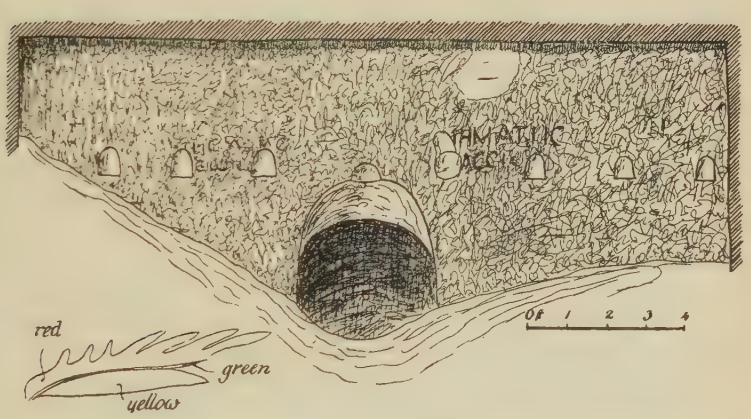
The outside of the tomb, with the staircase leading up to it, will be best understood from an inspection of the view. On the landing to the spectator's right of the doorway a small olive press has been cut. Round the corner of the mass of rock, to the right of the doorway, will be noticed a depression. This is a rock-cut grave, 2 feet wide and deep, and about 6 feet long, cut in the open air.

Over the doorway is inscription No. 4.

The following tombs extend at the top of the precipitous south wall (or on its face) of the valley, from the road from Neby Daûd to the charnel-house:—

13. (Plan VIII; Tobler, 18; Baedeker, 21).—A tomb with two chambers. The first, which occupies the place of a vestibule, is much ruined. An elevation of the southern face is shown in

the annexed cut, which indicates the positions of the inscriptions with the row of holes that have at some time and for some purposes been cut in the wall. There are two periods in the history of this chamber; the first, indicated by the inscriptions which are incised or painted on the rock; the second, by these holes which interfere with the inscriptions and plaster which at some time covered them. But few fragments of the plaster remain; a portion on the western side shows traces of an ornamental frieze in three colours, of which a sketch is annexed to the figure. The inner chamber is remarkable for three extraordinarily deep arcosolia (*see* the dimensions figured on the plan); I know of no example even approximately comparable with these.



Excavation would show whether (as is most likely) they were prepared for a number of bodies lying side by side; it would also open up a passage or loculus, the top of which is just visible above the *débris* at the east end of the south side. Close to this tomb are two cisterns with troughs.

The inscriptions on the south wall of the vestibule are Nos. 5 and 6.

14, 15. Two holes quarried in vertical steps: probably tombs, but if so, their original plans are quite erased.

16. A rectangular chamber on the face of the rock precipice, quarried open and destroyed.

17. (Tobler, 17).—A square chamber, which cannot be entered, as it is filled with *débris* to within a foot of the roof. By looking

through the narrow hole that now represents the doorway an entrance, with reveal, to an inner chamber can be seen.

18. (Tobler, 16).—A natural cavern, tooled at the mouth on the west with a $\frac{1}{2}$-inch chisel, and on the east and roof with some fine-edged tool.

19. A hole quarried in vertical steps (compare 14, 15).

20. An irregularly quarried hole.

21. The top of a scarped corner, just appearing above the soil.

22. (Plan VII).—A small chamber, at the eastward end of which is a rather irregular cavity. A fillet, with a vertical face of 4 inches and a soffit of 2 inches breadth, runs round the ceiling. The front has been quarried away.

23. (Plan IX; Tobler, 25; Baedeker, 18).—A very irregular excavation. It consists of three chambers, one of which is the central vestibule, and the others contain the graves. The entrance is to be found in the precipitous south wall of the valley. The plan and section show the disposition of the graves, which are much broken in the westward chamber. The sinkings for the heads will be noticed. In the west chamber is a niche, and also a hole broken by careless quarrying. The whole is so irregular that nothing is to be gained by figuring the dimensions.

Over the entrance is Inscription 7.

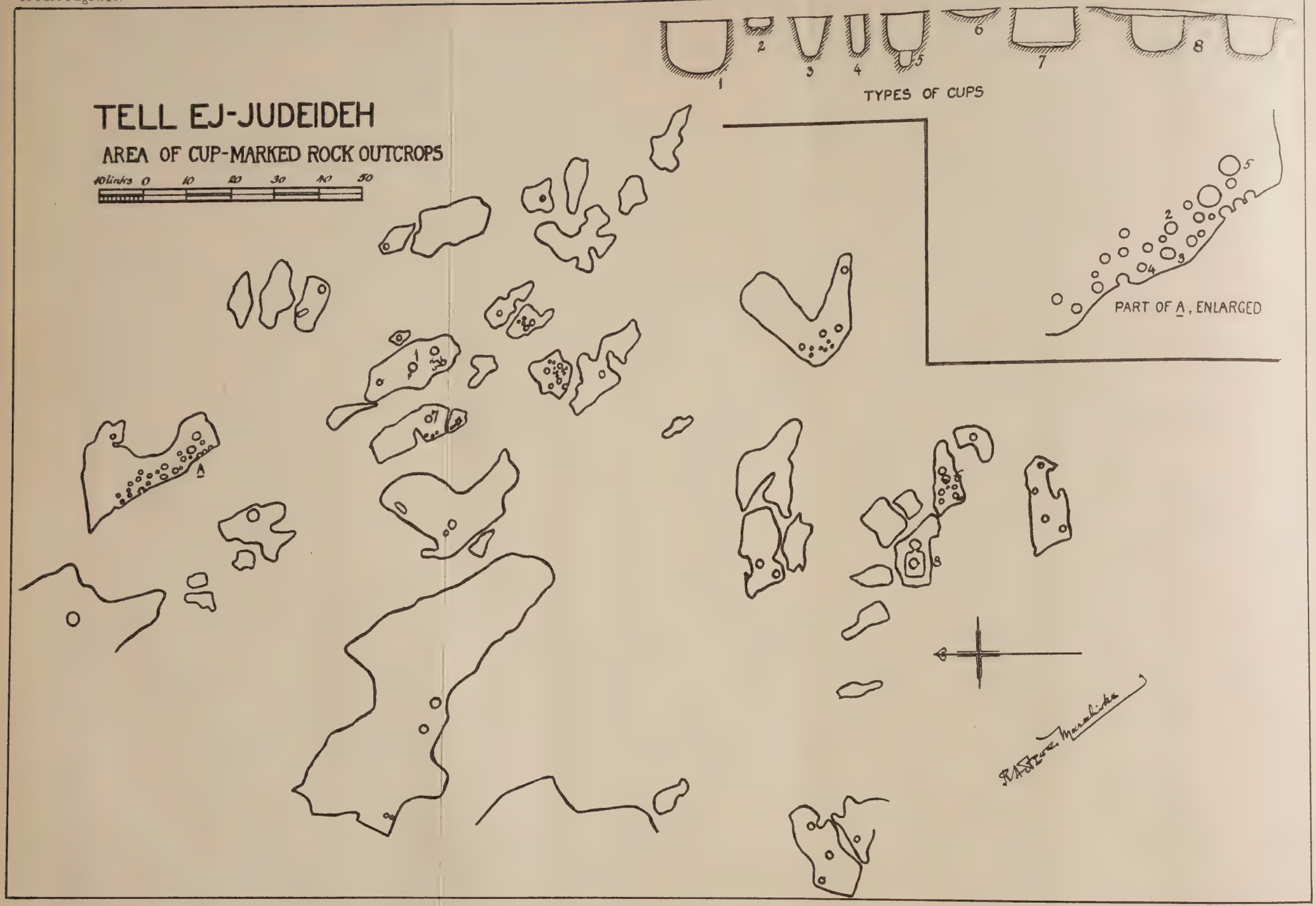
24. A single chamber of which the southward side (8 feet 6 inches long) alone remains perfect. No graves visible. There are some peculiar indefinite markings in black on the surface of the wall, but it is doubtful whether they have any purpose.

25. (Tobler, 15).—A single chamber, of which the south and west sides alone remain; it is 13 feet 8 inches long, 7 feet $4\frac{1}{2}$ inches broad. Under the ceiling on the south side is Inscription 8 in red, and below it a large cross in black. Tobler reports two inscriptions here, but this is probably an error.

26. A single chamber, of which the southward side (10 feet 6 inches long) alone remains perfect.

(*To be continued.*)

To Face Page 249.



Martin, Hood & Larkan, Photo Litho, Gt. Newport St. W.C.

CUP-MARKS AT TELL EJ-JUDEIDEH.

By R. A. Stewart Macalister, M.A.

The accompanying plate may be allowed to speak for itself. It represents the outcropping surfaces of rock in a small area on the western slope of Tell ej-Judeideh, and shows the extraordinary profusion of cup-marks displayed upon them.

The majority of the cups are saucer or bowl shaped, but some are of unusual form, and a few are unfinished. While one pair, connected with a shallow catchment-basin, are apparently the vats of a small wine or olive press, the remainder do not seem capable of serving any conceivable utilitarian purpose.

Cups are found in large numbers all over the hillside, but nowhere so concentrated as in the area here represented; nor, except at one place to the north of Beit ej-Jemâl, have I seen anywhere a larger number grouped into a small space.

Of other remains of rock-working, Tell ej-Judeideh presents no examples of importance. The chambers and tombs are comparatively insignificant; notices of these will form part of an article to be submitted later.

NOTE ON GREEK INSCRIPTION.

By A. Souter, Esq., M.A.

I venture to suggest that in the inscription published in the Palestine Exploration Fund *Quarterly Statement*, 1900, January, p. 69, **ZOMINOC** is certainly a variety of Dominus. I should compare—

δάπεδον and *ζάπεδον*
διάβολος and zabulus
διαιτα and zēta (zaeta).

Cf. Jannaris's "Historical Greek Grammar," 1897, § 1,125. The forms are rare, but I have examples unregistered in the Latin lexica.

Aberdeen, *May 24th*, 1900.

NOTES BY THE REV. J. E. HANAUER.

Sculptured Marble Slabs.—Just before leaving Jaffa (April 18th), in order to return to my work in Jerusalem, a German colonist, whose relatives own a steam-mill at Mejdel, near Askelon, came to inform me that a number of beautifully-sculptured marble slabs had recently been dug up at the latter place, but buried again by the natives who found them. One of the slabs bore the picture of a man riding on the back of a large fish—I suppose a dolphin.

Terra-cotta Coffins.—I have been informed by a young Englishman recently returned from a trip through the country, that quite lately (about three or four weeks ago) several large terra-cotta coffins, one of which my informant says he saw, were dug up near the Druse village of el Mansurah, at the foot of el Mahrakah, on Mount Carmel. With the exception of the one seen by the narrator, the others had all been broken up by the finders.

Rock-hewn Vats.—On the afternoon of Friday, May 18th, Dr. Masterman, late your hon. local secretary at Damascus, and I were on our way to visit the settlement of Yemenite Jews on the western slope of the Mount of Offence, and south of the Moslem village of Silwan. We dismounted at Bîr Eyûb, and began to climb the steep ascent on foot, when, to our great surprise, on reaching the first rock terrace or ledge immediately east of Bîr Eyûb, and only a few yards (perhaps 30) from the old well itself, we found the remains of a great number of circular rock-hewn vats, about 27 inches in diameter at the top, and about 18 inches deep. I have this afternoon been down again, in order to examine these more closely, and at my request Mr. Charles Hornstein, who accompanied Sir Charles Wilson to Petra last year, kindly consented to accompany me. We counted about 30 of these vats. They are arranged in rows and at different levels, though near each other. Most of them are full of earth, but a few are empty. We also found traces of a well-cut staircase, leading past them up the hill. I had often before noticed this old staircase, but never thought it worth my while to examine it closely. This was the first time that I ever had occasion to cross the rock terrace, though, when working with

Sir Charles Warren, over 30 years ago, I passed between it and Bîr Eyûb scores of times. Consequently, I had never before noticed the rock-hewn vats. Since finding them I have consulted every book that I could think of as likely to throw light upon their being found here, but find no mention of them anywhere. Amongst other things, I have read the articles on En Rogel and the Fuller's Field, &c., in the new edition of "Smith's Bible Dictionary," and, in spite of all the arguments against the tradition identifying Bîr Eyûb with En Rogel, I am sorely tempted to think that these newly-found remains decisively indicate the existence of fulling works at this particular spot in former times. The name En Rogel means (as I hardly need remind your readers) "the Spring of the Fuller." Just underneath the rock where these vats are there is a small opening into what Fellahîn at Bîr Eyûb told me was a large cave full of red earth. One of these peasants told Mr. Hornstein and me that this is the cave in which Sidna Eyûb ("our lord Job") lived when covered with leprosy. Our informant told us that he had often used the cave as a sheepfold. I had no time to explore it.[1]

JERUSALEM, *May 30th*, 1900.

INSCRIBED JAR-HANDLES OF PALESTINE.

By Professor CLERMONT-GANNEAU, LL.D.

I.—The statement made by Prof. Sayce (*Quarterly Statement*, January, 1900, p. 69) that in the collection of the Palestine Exploration Fund there is another jar-handle bearing the remains of a royal seal, is a very interesting fact in itself; and still more so, perhaps, because of certain archæological consequences which it may lead to, as I shall point out.

From the description given by Prof. Sayce, and the various labels which are stuck upon it, I have indeed recognised the fact

[1] A further communication respecting these vats by Mr. Hanauer, with notes by Dr. Selah Merrill, has reached the office of the Fund too late for publication in the present *Quarterly Statement*.

that this handle can be no other than that which is engraved from a hasty sketch in my "Archæological Researches in Palestine" (vol. i, p. 292). This handle was discovered by me in 1874, amongst much ancient rubbish, in a large and very curious cavern in the so-called Mount Zion, where I undertook some excavations. I did not at the time notice the almost effaced marks of the seal which it bears, which must have been rendered visible by means of subsequent cleaning. It has been drawn at London, out of my reach, and, since the original has been placed in the collection of the Fund, I have not had an opportunity of looking at it a second time. Since the Committee has been so good as to send, at my request, the original to me at Paris, I have been able to ascertain two points concerning it: (1) its identity; (2) the actual existence of the traces of the stamp, recognised by the experienced eyes of Prof. Sayce. I think, however, that the reading of the mutilated name of the town stamped upon it should be corrected. It is not, as Prof. Sayce supposes, ... נב = [ד]נב = *Nebo* (Ezra ii, 29), or *Nob*, *Noba* (1 Sam. xxi, 1), but it is ... חב = [חב]רן, that is, the name of *Hebron*, which we find on many of the jar-handles from Tell Zakariya, Tell es-Sâfi, and Tell J'deideh, then the complete inscription would be למלך / חב[רן], that is to say, according to my previously proposed explanation, *For the King.—Hebron.*

The point which I wish to press is the certainty of the place from which this handle comes, which enables us to assign a relative date to the numerous relics of antiquity of all kinds collected together in this mysterious cave on Mount Sion.[1] I think that it would be of great importance to resume the excavations which I unfortunately was obliged to break off in this cave, whose exceptional interest I had specially pointed out. Here is, in my opinion, a perfect hoard of antiquities, and we have now a positive proof of the period to which many of these antiquities may belong, that is to say, a period previous to the Exile. I can only repeat, on this subject, the regret which I expressed on p. 294 of the work already quoted: "Who knows what might be found among this rubbish, some of which may be of very great antiquity?"

[1] For description and enumeration, see my "Archæological Researches," vol. i, pp. 292–293, and vol. ii, p. 484 *ff.* (*Rough List ... of Antiquities ...*), Nos. 30–46.

II.—At first sight I was inclined to read the legend on the stamped handle (*Quarterly Statement*, January, p. 18, No. 1, *cf.* p. 13), not, as has been done, לעזר חרי "belonging to Ezer, Hori," but rather "To Ezer (or *Azzur*) *Haggai*." The cast which the Committee has been kind enough to send me fully confirms this conjecture, which was suggested by the mere sight of the drawing; the second word is clearly written חגי, *Haggai*. It is the same name which we have already met with on the seal discovered by Sir Charles Warren on Ophel, and is therefore a new mention of the very name of the prophet Haggai.[1] The Jewish name עזר appears also upon another seal which I published seventeen years ago.[2]

Since I examined the jar-handle on which I read the name of Nob (?) it has been cleaned, and I have no hesitation in accepting Professor Clermont-Ganneau's correction. The name is certainly Hebron.—A. H. Sayce.

MAR METRI: OR THE GREEK CONVENT OF ST. DEMETRIUS AT JERUSALEM.

By Dr. Conrad Schick.

In the Ordnance Survey plan is entered under the number 10, in the Hârat al Istambulîye, north of the castle, a place called in the "References," "Greek Convent of St. Demetrius." It will now cease to be a convent, and be converted into a school; a great part of the building will be pulled down, and the whole built up again as a new and more convenient place. It consists of an old church, and various rooms for a priest and his assistants, and to lodge a few hundred pilgrims. As the new building will be different from the old, I thought it expedient to make a plan of the old as a record, and have at the same time to make the following remarks and explanations.

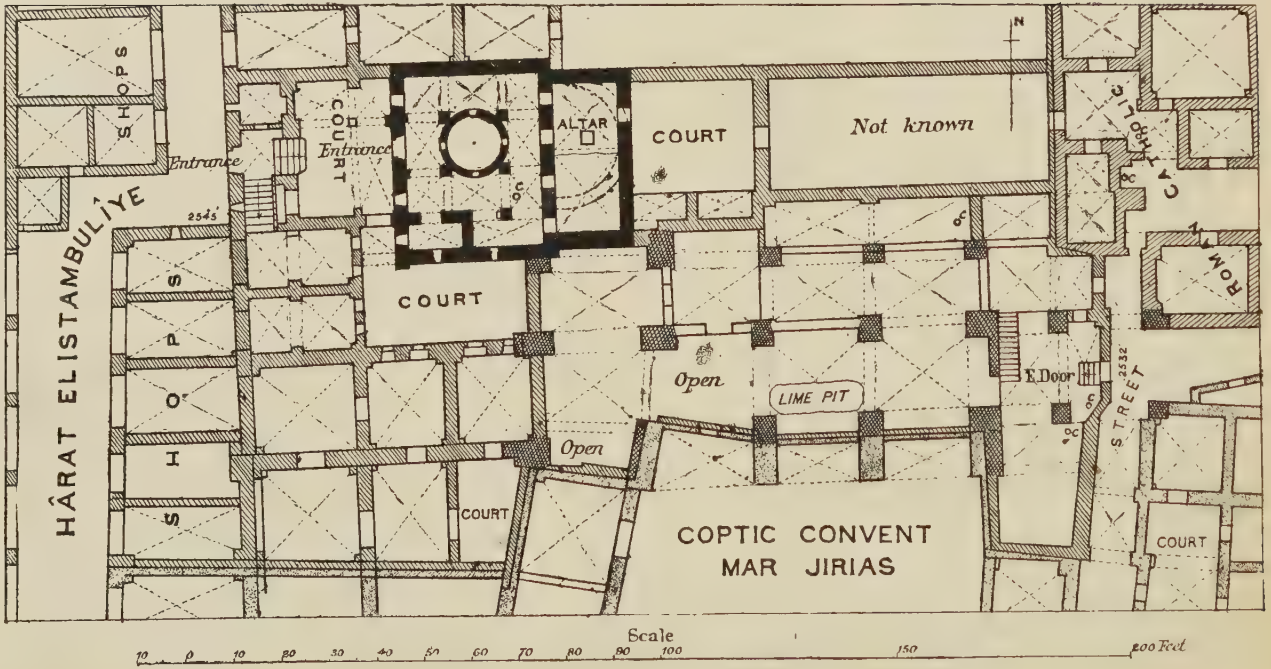
The entrance to the convent, or rather pilgrim's house under clerical superintendence, is from the western street, usually called Hârat al Istambulîye, and as in course of time the level of the street became

[1] The feminine form of this proper name, חגת (Haggit), appears on a Phœnician seal which I have published elsewhere (Clermont-Ganneau, "*Sceaux et Cachets Israelites, Phéniciens, et Syriens*," p. 26, No. 23).

[2] Together with the foregoing one (*op. cit.*, p. 14, No. 4).

PLAN OF CHURCH AND CONVENT "MAR METRI."

(From a Drawing by Dr. Conrad Schick.)



higher, whilst the ground floor of the convent remains at its original level, it is now 5 feet lower than the street, and a person coming inside the door may go to the right hand up a flight of steps to the upper story, extending over the shops, or straight on down six steps into an open court, having on the north and east a corridor, which in the south ends in a short passage, leading into another and larger open court, and to the many rooms of the lower story. But going eastwards, across the eastern corridor, one comes into the church dedicated to St. Demetrius. It is an old building, square inside, 29 feet wide each way, and in the centre are standing four tall square piers, dividing the room into nine parts, of which the middle ones are wider than the outer ones. Eight of the spaces are cross-vaulted, and the ninth, or centre one, is worked up to a tambour which has four windows towards the four points of the compass, and supports a little dome with an iron cross on its top. The dome has a diameter of 15 feet. If the door is shut the church is rather dark, as the windows in the tambour are small, and overshadowed by buildings in front of them.

The present church has no apse, but certainly had one originally, which, as it seems to me, was not once only, but twice in part destroyed and restored again, as the old remains in the present walls and vaultings prove. It was probably only one large apse (as marked on the Plan by dotted lines), not the usual three, as three would have come out rather too small, and not afforded space enough for the altar. Still it is possible there may have been three, as the church of which traces were found in 1889, north of the barracks and the Haram esh-Sherif, reported upon by me (*Quarterly Statement*, 1889, p. 172), has also such small apses, three in number, the church being very nearly of the same size as Mar Metri. But behind this church there was rock, and consequently not room for a large one, and so small ones were made. But here, at a later time, the eastern wall of Mar Metri was just 17 feet back from the main church, which indicates that the apse reached originally there, and so it must have been a single large one. The wall with the three doors between it and the church, is a later construction. It forms now the Iconastasis, which originally was most probably, as in all these churches, of wood, and not so thick. Behind is the Hagion, with the altar, now square and too large for such a small church. It was erected when the last restoration was made. The apse is lighted by only one window in the new east wall. The main church has on the south side an addition, just as the one referred to (*Quarterly Statement*, 1889, p. 172) has on the north side.[1] Here the western half is made into a room, with an open doorway ; the eastern part forms an addition to the main church, to be used as a baptistery, the font is close to the pier standing there, and close by is the mouth of the cistern. From this place a door on the east formerly led into a little room on the outside

[1] And the Church of the Saviour at Constantinople, *see* "Procopius," p. 169.

of the apse wall. Behind the church is an uncovered court, and a tree is growing there. South of it, and for some 50 feet eastwards, is an underground flooring at a lower level than the western part of the convent, for there the road in the western street is marked on the Ordnance Survey Map 2545, and the eastern road at the eastern limit of Mar Metri 2532; hence a difference of 13 feet. When coming in by the east door one has also to step down several feet, and this makes the eastern part an underground story, which is interesting, as there are a number of piers there, all of them made of large and very finely dressed stones. The piers of the southern row are remarkable for their great size—14 feet long and $5\frac{1}{2}$ feet to $6\frac{1}{2}$ feet wide—just like those at the Muristan, and bearing girdle arches of similar hewn stones, supporting cross vaults. It is clear that some building of importance formerly stood here, but what it was is difficult to say. Its chief part or the south front stood apparently under the present Coptic Place (the Convent and Church Mar Jirias or St. George). Where the ground is filled up to a higher level there are small chambers for lodging pilgrims.

The history of this place, as far as I could ascertain, is very short. In ancient Jerusalem most likely the second wall ran here, coming from David's tower, or a little west of it, from the Gate Gennath northwards, and making about here a turn and passing eastwards, south of the Church of St. Sepulchre to the northern part of the Muristan, where it turned again northward.[1] As Titus did not destroy the western part of the second wall, but put soldiers in the towers thereof, so it was certainly used after the city had been destroyed, for the Roman garrison left here, as we are told by Josephus.

When in the fourth century the Church of the Holy Sepulchre was built, the site was outside the then still recognisable wall, a new wall was built west of the Anastasis or New Church, to bring it inside the wall, which new wall must have started from some point in the old second wall, north of Hezekiah's pool, as explained and proved by existing remains in *Quarterly Statement*, 1891, p. 277.

As the Mar Metri Church is not Crusading but Byzantine, for it already existed when the Christians took possession of the town A.D. 1099, so these underground buildings must also have been there already, as the south-eastern corner of the church stands on one of the piers, and the latter also are probably either Byzantine or, as I suppose, Roman. From the year 1150 A.D. we have a plan of the city,[2] as it was not long after being taken by the Christians, in which just at this place is shown a church: "Ecclesia in funda S. Georgii." At that time it bore the name "S. George" only, and the buildings afterwards became divided into two, "St. George," and "Demetrius." Tobler, even as late as 1853, describes in his "Topography of Jerusalem," Berlin, 1853, vol. i, p. 279, the very building as one, "in a fine situation, having two

[1] Compare plan in *Quarterly Statement*, 1893, p. 191.

[2] "Zeitschrift des Deutschen Palästina Vereins," 1891, p. 136.

churches, Demetrius and St. George." But now the latter belongs to the Copts, and was described by me in *Quarterly Statement*, 1896, p. 217, under No. 5, whereas St. Demetrius, and the better part of the buildings, belong to the Greeks, a thing which Tobler has overlooked. He says that the name Demetri he has not found before A.D. 1400. It was west of the Church of the Holy Sepulchre, and at that time it was described as a pretty church with a chapel of St. George. It was always a lodging home for pilgrims. May the words "Ecclesia in fundi" (on the plan) perhaps mean the church on the arches or foundations? If so, it would also prove that the piers are not Crusading, but earlier, and as they are similar to those in the Muristan, the latter may also be older, and perhaps Roman (?). It was always a puzzle how the Knights of St. John could, besides their many other labours, do such an immense and fine work, extending over so large a space, and with such deep foundations, in the short period of scarcely half a century. But if these piers already existed with some of their arches, one can understand that the work would not have been so difficult of accomplishment.

It will be seen that on my plan in the east, one of the old arches (the southern) goes over the street there, whereas the opposite one on the north is destroyed, but the piers are still observable. These are the end, or most eastern piers, and till here the ground is rather level, whereas further east the ground, and so the street, falls rapidly down to Christian Street. So this old building stood on an elevated spot, or high terrace, 35 feet from the western limit of Hezekiah's Pool. This upper terrace was about 135 feet broad, and bounded on the west by the southern part of the second wall.

JERUSALEM, *July*, 1899.

THE COLLECTION OF BABYLONIAN TABLETS BELONGING TO JOSEPH OFFORD, ESQ.

By Theophilus G. Pinches, Esq.

There are probably but few studies that have thrown so much light on the history of the Holy Land in ancient times as that known as the science of Assyriology. And not only has it added to our knowledge of the history—the language, political state, manners, customs, and also the religion of that part of the world before the advent of the Hebrews have likewise been illustrated. The greatest discovery ever made in the domain of Assyriology bearing upon this tract was, in all probability, the Tell-el-Amarna letters, found in Egypt. These made known to us the fact that the current non-vernacular in the Western Asian district, before the entry of the Hebrews, was that tongue revealed to us by the monuments as the native speech of the Babylonians and the Assyrians, nations closely related in ancient times and apparently deriving their civilisation from the same source.

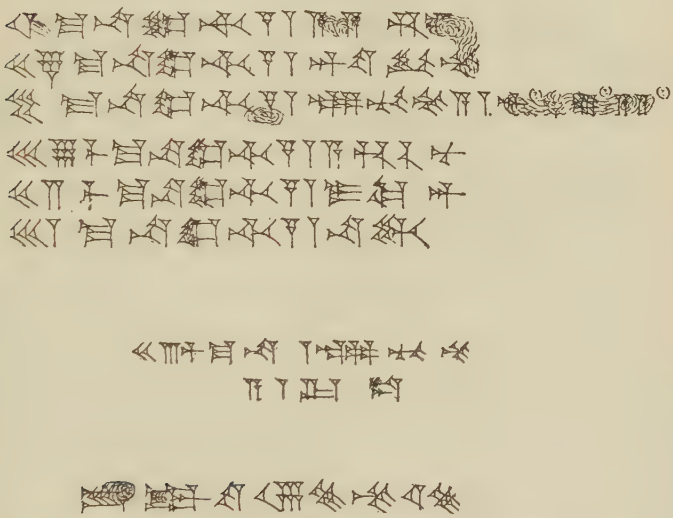
This being the case, I have no reason to apologise for calling attention to a few tablets of the collection of Mr. J. Offord, who desired that the story which they had to tell should be printed in the *Quarterly Statement* of the Fund. They do not come from Palestine, nor do they, to all appearance, mention anything in connection with the ancient state of that all-engrossing land, but they recall to us many a sacred story in the names that they mention, and the new, yet old, Semitic words they reveal to us, whilst their Babylonian script reminds us of the time before the Israelites entered therein, and the interesting, though rare, Aramaic dockets bring before our minds the period when those conquering Israelites, who have made such a mark on the world's history, themselves departed to their captivity at Babylon, and learned to write another language in another style of writing, the one being the Aramaic tongue, generally known as Chaldee, and the other that which has developed into what we now call square Hebrew.

The tablets of Mr. Offord's collection of antiquities that I have seen are four in number. One of them has been published by the

Rev. J. N. Strassmaier, S.J., but the others are, as far as I know, unpublished. There are also three Babylonian cylinder-seals, which present some points of interest.

The first text that I translate is a simple list of amounts of a substance called *šarti*. Now the only word *šartu* (nominative form) in Delitzsch's "Handwörterbuch" means "hair" (that of the body, not of the head, which was *pirtu* or *muttatu*). In the list of amounts in question, however, one would hardly expect to find hair mentioned, but it might be wool, which is another meaning of the word. I suspect, though, that the substance represented

I.



Tablet belonging to J. Offord, Esq., apparently referring to barley.

by *šarti* is in reality "barley," the bearded or "hairy" cereal, the word for which is very rare. If this be the case, it would show that the Hebrew שַׂעָרָה, "hair," and שְׂעֹרָה, "barley," were represented by the same word in Assyro-Babylonian.

The length of the tablet is $2\frac{3}{4}$ inches, and the width or height $1\frac{1}{2}$ inches. From the appearance of the clay it evidently came from Sippara (Abu-habbah). The following is a transcription and translation of the text:—

Transcription.

Obverse.

Išten-ešret ma-na šar-ti ša 𒁹 A-a-ḫu-u (?);
Ešrâ-sibet ma-na šar-ti ša 𒁹 Šamaš-aḫa-iddina;
Ḫamšâ ma-na šar-ti ša 𒁹 Nabû-zēr-iddina abil 𒁹 . . . u (?)-a (?)-a (?);
Šelašâ-tîšet bar ma-na šar-ti ša 𒁹 A-ḫu-šu-nu;
Ešrâ-šinâ bar ma-na šar-ti ša 𒁹 I-di-îlu;
Šelašâ-išten ma-na šar-ti ša 𒁹 Na-ṣir.

Reverse.

Êšrâ-šalšet bar ma-na 𒁹 Nabû-zēr-iddina
abil 𒁹 Ur-du.

Arḫu Nisannu, ûmu šiššêšru, šattu ištenešrētu.

Translation.

11 *mana, the barley of Aaḫû (?);*
27 *mana, the barley of Šamaš-aḫa-iddina;*
50 *mana, the barley of Nabû-zēr-iddina, son of . . . uaa (?);*
39½ *mana, the barley of Aḫu-šunu;*
22½ *mana, the barley of Idi-îlu;*
31 *mana, the barley of Naṣir.*

23½ *mana Nabû-zēr-iddina*
son of Urdu.

Month Nisan, day 16*th, year* 11*th.*

If my translation of "barley" for the word *šarti*, which appears in this text, be right, then the ideogram (Akkadian or Sumerian expression) for this word is 𒌋 𒌋𒌋 (*see* the "Corpus Inscriptionum Semiticarum," pars ii, t. i, fasc. 1, p. 43). The transcription there given (which is my own) is *serani*, and is based on the שערן[1] of the Aramaic version of the tablet there published. The equivalent Syriac word is ܣܥܪܬܐ *se'arta*, agreeing in form with the Assyro-Babylonian *šartu*, and the Hebrew שְׂעֹרָה.[2]

The reverse of the tablet has an additional entry in smaller characters, this having been omitted by mistake on the obverse.

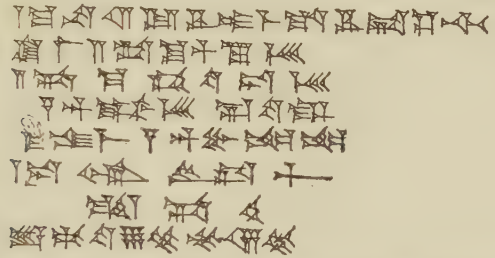
[1] This agrees in form with the Hebrew שְׂעֹרִים, the plural.

[2] It is to be noted that, if the *šarti* of this tablet meant "hair" or "wool," it could hardly be used without being defined more exactly, and would need the name of the animal from which it was taken.

As the person here mentioned had the same name as the third of the list, the names of the fathers of the two Nabû-zēr-iddinas have been added, so as to distinguish them.[1] This name, it may be noted, is the Nebuzaradan of 2 Kings xxv, 8, &c., and is there vocalised, with regard to its last component parts, like Merodach-baladan.

Judging from the date, the tablet must have been written either in the reign of Nabopolassar, Nebuchadnezzar, Nabonidus, or Darius. Of these four reigns those of the first two may be considered as the most probable.

II.



Tablet belonging to J. Offord, Esq., referring to garments for the images of deities at Sippara.

The second tablet is $1\frac{1}{2}$ inches long by 1 inch high, and has almost the whole of the reverse blank. This also evidently came from Sippara, as the inscription refers to robes for the deities of the great temple there.

Transcription.

Išten ma-na šanêšret šiqli SIG-KAN-ME-DA (SIG) ta-kil-ti
maštaktu šit-ta kusêti
šit-ta naḫlapāti
  ša D.P. mârāti Ê-babar-ra
ni[bittu] ša D.P. Bu-ne-ne
Du-muq D.P. UŠ-BAR
  it-ta-din
Araḫ Aari ûmu tišû šattu ḫamiš-êšrētu.

[1] The name of the father of the Nabû-zer-iddina mentioned in the third line of the text must have been added at the same time as the additional name on the reverse.

Translation.

1 *mana* 12 *shekels of violet woollen stuff*
the weight for two robes (*and*)
two mantles
for the divine daughters of E-babarra, (*and*)
the garment for the god Bunene,
Dumuq, the weaver,
has given.
Month Iyyar, day 9th, year 15th.

This text testifies to the renown of the city of Sippar or Sippara as a centre of ancient Babylonian weaving industry. In all probability it would not be going too far to suggest that the "goodly garment of Shinar," mentioned in Joshua vii, 21, came from the neighbourhood of this city. The word *takiltu*, "violet," is the Hebrew תְּכֵלֶת, mostly translated *ὑάκινθος*, *ὑακίνθινος* by the Septuagint. This colour was obtained from a species of murex. (*See* the article "Purpur," in Riehm's "Biblischer Handwörterbuch.")

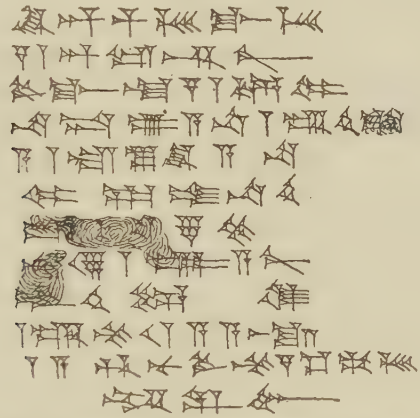
The first word in line 5 is to be restored . It occurs in the list of clothing and stuffs published in W.A.I. V, pl. 15, l. 52*e*, and is there explained by a word of which only the first character, , *ni*, remains. I have restored *nibittu*, by comparison with line 53 of the obv. of the same list, where the Akkadian is explained.

Sippar was also the chief centre of the worship of Šamaš, the Sun-god, and of the deities associated with him—Aa, the Moon-goddess as his consort; Bunene, a god of whom very little is known; "the lady of Sippar," probably consort of Bunene; Anunitum, one of the names of the goddess Ištar; Gula, the "great" goddess, the same as Bau, she who was described as "glorious." Besides these, Rimmon or Hadad was worshipped there, with his consort Šala; Anu, the god of the heavens, with his consort Anatu; and Mišarum and Dâanu, the two attendants of the Sun-god, the principal deity of the place. There, too, divine honours were paid to the chariot of the Sun-god, and even the temple-tower, a type of the tower of Babel, such as all the principal cities of Babylonia possessed, was honoured in the same way.

Among the minor deities of the place, however, were the

divine Daughters of E-babara, who are mentioned in the translation of the tablet of which we are now speaking. May we, by chance, see in this expression the key to the enigmatical Succoth Benoth, which the Babylonians who were transported to Samaria are said to have made? That they should have made booths for the divine daughters whom they worshipped is not only conceivable, but probable. The inhabitants of Babylon referred to in 2 Kings xvii, 30, no doubt had their own "divine daughters" whom they worshipped, as did their fellow-countrymen, the dwellers in Sippara.

III.



Tablet belonging to J. Offord, Esq., referring to the sale of an enclosure. (Dated in the 18th year of Nabopolassar.)

The third tablet is $1\frac{3}{4}$ inches long by 1 inch high, and is inscribed on both sides as well as on the upper and lower edges. Judging from the writing this also comes from Sippara.

Transcription.

Uṣurat parzillē rabûti
ša ᛉ D.P. Nergal-bêl-uṣur
D.P. gal-la ša ᛉ Šul-lum
na-du-u a-na ᛉ Bêl-uball-iṭ
abil ᛉ Ala-lu-mur a-na
mi-sir-tum na-din
araḫ Ululi (?) ûmu sibû
šattu samna-êšrētu ᛉ Nabû-abla-uṣur
šar Bâbîli D.S.
ᛉ Bêl-iddina u ᛉ Abla-a ina qâtâ
ᛉ A-ḫu-nu D.P. mu-ša-rim âlpē
maḫ-ru-'

TRANSLATION.

A railing of stout irons
which Nergal-bêl-uṣur
servant of Šullum
fixed, to Bêl-uballiṭ
son of Ala-lûmur for
an enclosure has been sold.
Month Elul (?), day 7th,
year 18th, Nabopolassar,
king of Babylon.
Bêl-iddina and Ablaa from the hands
of Aḫunu the neat-herd
have received (it).

In this text we have a document of a somewhat uncommon nature, for it is seldom that we meet with a reference to erections of this kind. Indeed, were it not for the expression *parzillē rabûti*, I should be in great doubt as to what the text referred to, the first character being one having a large number of meanings. The word *mîsirtum* in line 6, however, which comes from the root *êsēru*, "to enclose," and is connected with the Hebrew אָסַר, seems to place the meaning beyond a doubt. The masculine noun, *mêsiru*, is quoted by Delitzsch as meaning "enclosure" in a military sense, and "covering" (overlaying) of a door. *Mêsirru* seems to be another way of writing the same word.

The Semitic reading of the first character, with the prefix for "wood," , is *uṣurtu* (construct case, *uṣurat*), meaning "barrier." As, however, the object in question is described as consisting of "great irons," the prefix for "wood" is very properly omitted. In all probability it was an enclosure in which to keep cattle (*see* line 11). The date, eighteenth year of Nabopolassar, corresponds with the year 608 B.C.

The fourth is a fairly large contract-tablet, $2\frac{7}{8}$ inches long by $2\frac{1}{4}$ inches wide. The 22 lines of writing with which it is inscribed are published by the Rev. J. M. Strassmaier, S.J., in his "Inschriften von Darius." As Strassmaier's copy is fairly good (his text contains only two unimportant mistakes) I do not repeat the inscription here. The mutilated impression of a cylinder-seal with which the blank space on the obverse is impressed, is of little value—it represents simply a shaven priest in adoration before a representation of the lunar crescent, raised on the conventional

pedestal which generally occurs in scenes of this kind. What gives to this tablet a certain importance, however, is the fact that it has on the edges two Aramaic dockets which, though they are not very clear, are nevertheless worthy of notice, especially as they have not been publised.[1]

The following is a transcription and translation of the not uninteresting text of this document:—

Transcription.

Šelašâ (immer) par-ra-tu^{m} (pl.) ak-ka-di-i-tu^{m}
ša ᵀ Zēru-Bâbîli D.S. abli-šu ša ᵀ Mu-te-e-ri-ṣu
îna muḫ-ḫi ᵀ D.P. Marduk-ri-man-ni abli-šu ša
ᵀ Bêl-uball-iṭ abil D.P. ni-šur gi-ni-e.
Ina âraḫ Simanni (immer) par-ra-tu^{m} (pl.) -am (?)
šelašâ ak-ka-di-i-tu^{m} bab-ba-ni-tu^{m}
îna Bâbîli D.S.
i-nam-din.
D.P. Mu-kin-nu ᵀ Nabû-êṭir-napšāti abli-šu
ša ᵀ Kal-ba-a ᵀ D.P. Mâr-bêti-iq-bi
abli-šu ša ᵀ Nabû-zēr-ibaš-ši abil ᵀ Ban-a-ša-îli-ia
ᵀ Gab-bi-Bêl-um-ma abli-šu ša
ᵀ Nabû-za-ba-du ᵀ Ni-din-tu-Bêl abli-šu ša
ᵀ D.P. Marduk-êṭir ᵀ D.P. Marduk-šum-ib-ni
abli-šu ša ᵀ Nabû-šum-išk-un abil ᵀ D.P. Sin-tab-ni
ᵀ D.P. Za-ri-qu-iddina âbli-šu ša ᵀ Bêl-uball-iṭ
abil D.P. šangî D.P. Šamaš
u D.P. rittu ᵀ Nabû-napiš-ti^{m}-uṣur âbli-šu ša
ᵀ Šapik-zērî âbil ᵀ Mar-duk-u
Bâbîli D.S. âraḫ Aari, ûmu ribû
šattu išten-êsrētu ᵀ Da-a-ri-ia-wuš
šarri Bâbîli D.S. šarri [mâtāti]

Translation.

30 *Akkadian ewes*
of Zēru-Bâbîli son of Mutêriṣu
upon Marduk-rêmanni son of
Bêl-uballiṭ, son of the overseer (?) of the dues.
In the month Sivan, the ewes,
30 *Akkadian ones, unblemished (?),*
in Babylon
he shall give.
Witnesses: Nabû-êṭir-napšāti, son
of Kalbaa; Mâr-bêti-iqbi,
son of Nabû-zēr-ibaššî, son of Banâ-ša-îlī-ia;

[1] Mr. Offord tells me that Dr. Boissier first pointed out to him the existence of these dockets.

Gabbi-Bêlumma, son of
Nabû-zabadu; Nidintu-Bêl, son of
Marduk-êṭir; Marduk-šum-ibni,
son of Nabû-šum-iškun descendant of Sin-tabnî;
Zaḳiqu-iddina, son of Bêl-uballiṭ,
descendant of the priest of Šamaš;
and the scribe, Nabû-napištiᵐ-uṣur, son of
Šapik-zêrî, descendant of Marduku.
Babylon, month Iyyar, day 4th,
year 11th, Darius,
king of Babylon (and) king of [countries].

In the above translation I have not been deterred by the undesirability of making "Assyrian English" from giving it as literally as possible, as there would in any case be necessity for a certain amount of explanation.

To all appearance it is an agreement or contract to deliver 30 Akkadian ewes at a certain date. A free translation of the essential part of the contract would read as follows:—

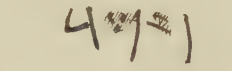
"30 Akkadian ewes for Zêrû-Bâbîli, son of Mutêriṣu, are with Marduk-rêmanni, son of Bêl-uballiṭ, descendant of the overseer (?) of the dues. He shall give the ewes, 30 Akkadian ones, unblemished (?), in Babylon in the month Sivan."

The word translated "for" is *ša*, which is used in the text referring to the robes for the statues of the gods—"2 mantles for (*ša*) the daughters of Ê-babara" translated above. The word rendered "with," *ina muḫḫi*, literally "upon," apparently indicates that the animals were in the possession of Marduk-rêmanni. Peiser, in his "Texte Juristischen und Geschäftlichen Inhalts" (Schrader's "Keilinschriftliche Bibliothek," vol. iv), translates *ša* (very freely) by "gehörig," and *ina muḫḫi* (in an equally free manner) by "zu erhalten von." His rendering, however, gives the sense correctly.

We now come to the portions unpublished by Strassmaier, namely, the Aramaic dockets. As before remarked, neither of them are very clear, but the four letters in the line written on the left-hand end are certainly מרדך, that is, Marduk or Merodach. From this we see that the name must be that of the person in whose possession the ewes were, Marduk-rêmanni, and on looking at the traces which follow, the lower part of a ר, and of another letter, are clearly visible. In all probability the

complete word was מרדכרמן, which would be the Aramaic form of the name in question.

The three letters on the edge between the obverse and the reverse are still more uncertain. The last seems to be ד, and I conjecture that the first and second may have been מר, making the first three letters of Marduk-rêmanni, which name, having been begun, was partly obliterated, probably because they wished to have it on the short left-hand edge, not on the longer edge between the obverse and the reverse.



In the translation of the contract, I have transcribed *parratum* rather than *udratum* (Delitzsch), on account of the Syriac ܦܪܐ, "ewe." Apparently the term "Akkadian" (*Akkadîtum*) denotes some special breed. With regard to the name Zērû-Bâbîli, it is to be noted that this is the same as the well-known Zerubbabel (better spelled Zerubabel, with one *b*), but is not on that account the name of a Jew, as any foreigner or stranger born at Babylon might, and sometimes did, bear it. It occurs many times in the inscriptions.

Marduk-rêmanni, the name which appears also in Aramaic characters on the edge, is a pure Babylonian name, meaning "Merodach, be gracious to me." It is the name of a well-known tradesman or merchant at the time the tablet was written (concerning the date of the document, *see* lower down). That we should have it so imperfectly reproduced in the Aramaic transcription was to be expected, as it was not the custom at this period to insert the vowels to any great extent. It is apparently on account of this that we have the Biblical Nebushazban (Jer. xxxix, 13) without any indication of the final *i*, which the Babylonian form, Nabû-šêzib-anni, would lead us to expect.

The absence of the vowels in this name, as in many others, has apparently caused the Massoretic pointer to go astray, as, indeed, was to be expected. To all appearance he has followed the rule for such words.

In the transcription of the word that I have translated "unblemished" (?), namely, *babbanētum*, I have followed Delitzsch. I have always felt, however, that the true transcription is *kurbanētum*, which would give an excellent etymology, for it would then be connected with the well-known word Corban, and indicate something perfect enough to be offered as a gift to God. The derivation and meaning that I propose would suit all the contexts with which it occurs—*ṭem kurbanū*, "a solemn word," *šumu kurbanū*, "a solemn expression," a garment, *êššetum kurbanītum*, "new, perfect"—in fact, it could be applied to anything that was in a fit condition for sacred purposes.

A similar transaction, referring, however, to money instead of ewes, is printed (from my copy) by De Vogüé in the "Corpus Inscriptionum Semiticarum," pars ii, t. i, fasc. 1, pp. 73, 74. The transcription and translation there given are by the veteran Assyriologist, Professor Oppert. Marduk-rêmanni is again the contractor, and has his name in Aramaic characters on the edge, but in this case it is abbreviated, the first element only, מרדך, Marduk or Merodach, being written.

For the name Banâ-ša-îli-ia in line 11, Banâ-ša-ya is also a possible reading. To all appearance it is of the same nature as the common title Rabâ-ša-Ninip.

The date of Mr. Offord's tablet corresponds with 509 or 510 B.C., but De Vogüé supposes the tablet in the "Corpus" to be of the reign of Darius Nothus, 423 B.C., in which case the tablet here translated would belong to the year 412 B.C. I am inclined, however, to the earlier estimate. The transaction recorded by the tablet published by De Vogüé took place at Sippara, showing that Marduk-rêmanni did not confine his operations to one place.

THE BABYLONIAN TABLET IN THE COLLEGE MUSEUM, BEIRÛT.

By Theophilus G. Pinches.

It was with great interest that I read the note of Professor Porter upon the tablet which was published in the last *Quarterly Statement* (p. 124) of the Palestine Exploration Fund. A glance at the excellent process-block given therewith at once showed me that the text was an official date of the time of Samsu-iluna, the son and successor of Ḫammurabi (later Ammurapi), the Amraphel of Genesis xiv, 1. On my writing to the Secretary of this Society, Mr. G. Armstrong, he was kind enough to send me a photograph of the tablet, from which I was able to make the copy which accompanies these notes.

I have said that this tablet gives the official text of a date of the reign of Samsu-iluna, and this may, perhaps, need a little explanation. During the earlier periods of Babylonian history, it was the custom to date, not by an era, nor by the regnal years of their kings, nor (like the Assyrians) by the years of office of the eponyms, but by the principal event which distinguished the year that it was desired to indicate. For this purpose, in order that there should be no mistake about the date, it was necessary that there should be uniformity, and it must have been the custom to send out to the recognised scribes an indication of the event that was to serve for this purpose. As there is apparently nothing on the little tablet but the historical fact with which it is inscribed, I conjecture that it is one of the documents used for the purpose I have mentioned, namely, the communication to the scribes of the event of the year chosen for them to date by.

With the view of testing this, I consulted the inscriptions from Tel-Sifr, published by Strassmaier, and succeeded in finding, attached to two contracts, copies of this date, one of them in full, the other with the second clause omitted, the scribe apparently not thinking it worth while to write out the whole. Both these texts give variants, and one gives completions, which will be noticed in their place.

The following is a transcription of the text, with the completions of the last two lines, given by the tablet 33161, better known as B. 4:—

TRANSCRIPTION.

Mu Sa-am-su-i-lu-na lugal-e
giš-ku šu-nir ig-babar-ra
gušqi-kubabbar me-te ê-e-gi
D.P. Amar-uduka-ra a-mu-na-šub
Ê-sag-il-la mula ana-[kime].
mi-ni-in-mul-[la-a].

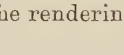
TRANSLATION.

Year Samsu-iluna, the king,
a bright-shining mace,
gold (and) silver, the glory of the temple,
to Merodach dedicated.
Ê-sagila like the stars of heaven
he made to shine.

B. 4 has the character *ê*, "house" or "temple" before *mete*, but this may be simply a mistake by the scribe, who was thinking of the temple called *Ê-mete*. The tablet 33240, better known as B. 83, has *me-te-e*, implying that the second vowel of the word was long. B. 4 omits *e* after *ê*, and reads *ê-gi* simply.

B. 4 has *-gi* after *Ê-sagila*, making the expression "the temple of Sagila," or "the temple of the high head."

In support of the rendering I have given, I offer the following remarks:—

The first group of the second line,  , I have been unable to find in the explanatory lists, and I was therefore obliged to decompose it into what are evidently its component parts, namely, = *kakku*, "weapon," and , *šu-nir*, = *šurinnu*, apparently "stalk" or "shaft" (of a column, &c.). I take the whole to mean "staff of office," "mace," or something of the kind. The last three characters, , *ig-babarra*, apparently have their ordinary meaning, "that which is bright." The first four characters of the third line are the usual words for "gold" and "silver," and present no difficulty whatever. , *me-te*, is equivalent to the Semitic Babylonian *simtu*, "adornment," "decoration," especially that which formed the special emblem of a temple, a god, or a king. The temple

, *Ê-mete*, equivalent to the Sem. Bab. *bêt simti* or *simâti* (plu.), probably means "the house of the dignity" (or "honour") of divinity.

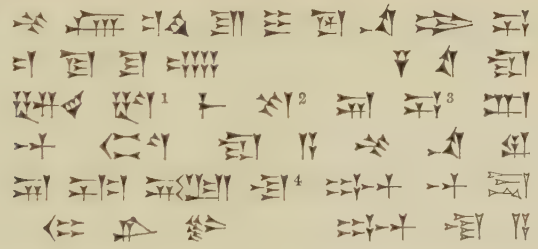
A-mu-na-šub in line 4 is, to all appearances, an Akkadian separable verb, the two component parts being , *A-ŠUB*. Another form, *A-mu-ŠUB*, with the pronominal infix *na* omitted, is also found. The meaning is fairly certain.

In the second phrase (lines 5 and 6) we have an example of a root used both as a noun and a verb. This is the word *mula*, "star," the verb being seen in *mininmullâ*, "it he made bright." *Mininmullaa* is also a possible reading, and the form found in this place is possibly short for that written with a terminal *m* (*mininmullâm* or *mininmullaam*).

The following is a free rendering of this interesting date:—

"Year Samsu-iluna, the king, dedicated to Merodach a bright-shining mace and gold and silver (or, of gold and silver), the glory of the temple. He made Ê-sagila to shine like the stars of heaven."

I give here the text in late Babylonian characters, with the variants from B. 4 and B. 83:—



[1] B. 4 here inserts , which would lead one to suppose that the scribe who wrote this tablet was thinking at the time of the temple , *Ê-mete*. would, however, be a better reading, as it would supply a genitive suffik (*-gi*) to the foregoing words (*gušqi-babbara-gi*, "of gold and silver"), but the traces are not those of the at the end of the line.

[2] B. 83 (tablet) here inserts , making *me-te-e*. The envelope has the reading of the text.

[3] B. 4 omits .

[4] B. 4 here inserts , making *Ê-sagila-gi*, "the temple of the high head." The characters in outline are completed from B. 4.

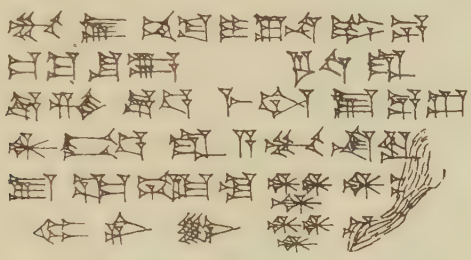
As Samsu-iluna reigned about 2100 B.C., this is one of the earliest notices of the celebrated temple-tower known as Ê-sagila extant. It is probable that there were but a few of the kings of Babylonia who did not undertake, at some time or other, to extend or beautify it. Nebuchadnezzar, so celebrated in sacred history, refers, in several inscriptions, to what he did in that direction, and in the India House inscription he speaks of the great work that he had undertaken upon it in the following way:—

> "The vessels of the temple Ê-sagila
> with massive gold—
> the bark Ma-kua (Merodach's shrine) with electrum and stones—
> I made glorious
> like the stars of heaven.
> The fanes of Babylon
> I caused to be rebuilt and endowed.
> Of Ê-temen-ana-kia
> with brick and bright lapis-stone
> I reared its head.
> To rebuild Ê-sagila
> my heart urged me—
> constantly did I set myself," &c., &c.

From the above it would seem as if the temple Ê-temen-ana-kia, which Nebuchadnezzar elsewhere calls "the Tower of Babel" (*zikkurat Bâbîli*), were the same as, or formed part of, the temple Ê-sagila. The reference to it comes between this king's description of making the vessels of Ê-sagila glorious with electrum and precious stones, the glorifying of the portable shrine of the god "like the stars of heaven" (this expression occurs in the Beirût tablet), and his determination to restore Ê-sagila, the carrying out of which he immediately proceeds to relate. If Ê-sagila and Ê-temen-ana-kia be one and the same, then there is at least one thing that may be regarded as certain, and that is, that this is the edifice which the Babylonians regarded as the Tower of Babel.[1] The name, moreover, Ê-sagila, "the house of the high head," would suggest that it was a taller structure than was usual even among buildings which the Babylonians

[1] A brick inscription of Esarhaddon, from the mound called Amran, practically identifies Ê-sagila and Ê-temen-ana-kia as one and the same, and at the same time indicates the site.

were accustomed to carry to a great height, and that it was intended to be a tower "whose top should be in the heavens," as is related in Genesis xi, 4.



The Text of the Beirût Tablet from the Photograph.

THE DEAD SEA.

By Gray Hill, Esq.

I have not observed any reference in the *Quarterly Statement* to the fact that the surface of the Dead Sea has risen considerably of late years. The following is an extract from Mr. Tyrwhitt Drake's report, which appeared in the *Statement* for 1874, p. 188:—"A curious fact with regard to the Dead Sea is to be noticed, as showing that the bottom is still subsiding. At the southern end the fords between the Lisân and the western shore are now impassable owing to the depth of the water, though I have been told by men who used them that they were in no places more than 3 feet deep some 15 or 20 years ago. Again, the causeway which connects the Rujm el-Bahr with the mainland has, according to the Arabs, been submerged for 12 or 15 years, though before that time it was frequently dry. The Arabs say that the level of the water varies much in different years, and is not dependent on the rainfall but on the sea itself, as they express it."

In speaking of the bottom as "subsiding," Mr. Drake must have referred to the portions which he specifies, viz., the causeway to the "Rujm," and the place of the former ford. If the whole of the bottom subsided, the whole of the water in the lake would subside with it. The circumstances which he mentions

are quite consistent with a general rising of the surface of the water, and indeed point to it. At any rate it is clear that the surface has risen since 1874.

The Rujm el-Bahr existed a few years ago as an island, at a short distance from the mainland at the north end of the lake. I remember, about 1890, seeing two Bedawîn, who were travelling with my wife and myself, swim out from the north shore to it. But the island has long since disappeared. According to Frère Lieven's "Guide Indicateur des Sanctuaires et Lieux Historiques de la Terre Sainte," 1897, vol. ii, p. 280 (note), this took place in 1892.

My wife and I have an excellent view of the north end of the Dead Sea from this house, which is distant from it about 15 miles, but for the purpose of examining it more closely we have recently been down to it, and encamped on the shore. There is now a large lagoon lying to the north of the north beach, and this lagoon extends east to what is now the estuary of the Jordan. This beach extends eastwards to a point not far short of the spot which formerly formed the west side of the old mouth of the river. Eastward of the beach, the estuary extends over a mile in width towards Sûeimeh. The lagoon behind the beach extends to the west and north for over a mile in each direction, and the proper mouth of the Jordan, where it issues from between narrow banks, is set back accordingly. The water of the lagoon tastes very brackish, and I noticed some dead fish in it.

It is evident that the Dead Sea has invaded the old mouth of the river and submerged much of the land to the east and north of the beach, which stretches like an arm to the east between the lake and the lagoon. The beach curves greatly to the north. When the Fund's map was made it curved to the south, then forming part of the north shore. There were many wild ducks and other waterfowl on the lagoon, and I noticed two cranes. At the north end of the Dead Sea were a few seagulls, which must, I suppose, feed upon the dead fish brought down by the river, which die on reaching the lake.

We had with us one of the Abu Dis sheikhs, who told us what we had heard before, viz., that the basin of fresh water in which tall reeds used to grow, formed by 'Ain el-Feshkah on the north-west side of the Dead Sea, is now swallowed up in the latter. We noticed also that the water of the lake was now nearer to the

wooden hut on the north shore than it was three years ago when we were last on the spot; although as the bank shoals very rapidly in this place a rise in the water would not be so observable here as in many other places. The hut was erected a few years ago. The frame of it alone is left now. It stands opposite where the "Rujm el-Bahr" was formerly to be seen.

Referring to the south end of the Dead Sea, I may say that on two occasions since 1894 we have returned from the Ghor es-Safieh to Jerusalem, *viâ* Zuweirah et-Tahte, and on both occasions our Ghawarineh guides took us through a passage in the chalk cliffs behind the hills bordering the south-west side of the Dead Sea. We asked to be taken by the shore past Jebel Usdum on the south-west side of the lake, but were on each occasion informed that the water was up to that mountain and that it was impossible to pass between it and the sea. In 1890 we did so pass, there being at that time a few yards of dry land in front of Jebel Usdum.

Turning now to the east side, I may say that the Fund's raised map shows a beach extending along the shore the whole way. I believe that this part was not surveyed by the Fund, and presume that the beach is shown in accordance with the reports of Lieutenant Lynch, the Duc de Luynes, or Canon Tristram. There is no such beach now, but the water comes close up to the cliffs from a point considerably north of the Zerka Mâåîn down to Wâdy Môjib. I can see that clearly from here with field glasses, and, indeed, in this clear atmosphere, with the naked eye. I have noticed this for two or three years. But I have been on the spot. Early in 1897 I passed along the east side in a small boat as far as Môjib and back, landing at Zerka Mâåîn, Môjib, and at several other points on the coast, and I found water, and that of considerable depth, close up to the cliffs and rocks in all this portion of the coast.

There has been no rain at Jerusalem since about March 20th in this year, yet the appearance of the north end of the Dead Sea and the estuary and lagoon from this house is the same as it was when I arrived here early in that month, and our dragoman, who lives here all the year round, says it continues the same all through the summer. Clearly, therefore, the rise is not due to the rainfall in any particular season. Perhaps it is due to the fact, if it be a fact, that the rainfall of late years has been more

abundant than formerly. Is it possible that there is some volcanic action at work raising the bed of the lake?

There was a slight earthquake here in January last, which was also felt as far off as Tiberias and Safed. And I may here record a strange appearance which we beheld from this house in May, 1899, and which may indicate volcanic action. I made a note of it at the time. Between 8 and 9 p.m. of the 2nd of that month our dragoman called our attention to repeated flashes of light coming, apparently, from a hollow in the mountains just north of Môjib and a little above the surface of the Dead Sea. It was not lightning. It did not flash across the sky, and the night was cloudless. It flashed upwards from this hollow, and from nowhere else. The flashes continued at rapid intervals of a second or two until 9.30, when we retired to rest. Our dragoman reported that he still saw the flashes going on at 2.30 a.m. They were extremely strong, and the scene was most impressive, and set us thinking of Sodom and Gomorrah. We did not find that anyone else had observed these appearances, but our house is almost the only one which overlooks the Dead Sea. Nor could I find, on inquiry, that anyone had ever witnessed similar appearances on previous occasions. Possibly the flashes were due to the ignition of naphtha or petroleum.

With reference to the east coast of the Dead Sea, my remembrance of Lieutenant Lynch's and the Duc de Luynes's works is that, although they are the only ones recording a voyage on the Dead Sea, they do not give much information about that coast, or any adequate pictorial representation of the very striking and remarkable features of the part which lies between the Zerka Mâåîn and Môjib. A careful examination of it and good photographs would give very interesting results. But in the absence of a suitable steamer or a properly-equipped sailing vessel I should not recommend anyone to undertake the business. I once tried in vain to get down to the Dead Sea from inland, along the valley of the Zerka Mâåîn from the Baths of Callirrhoe. I have not heard of anyone else succeeding in doing so. Nor have I heard of anyone getting down Wâdy Môjib to the lake; but even if the water could be reached by either valley, it would be quite impracticable to get along the face of the cliffs and gorges from the one stream to the other.

It may, perhaps, interest some of the readers of the *Statement*

if I give an account, taken from my journal, of the little voyage down the east coast to which I have referred. It may serve at any rate as a warning against the indulgence of enthusiasm without caution or consideration, and as an example of "how not to do it."

In February, 1897, I was informed that in a cave just south of the mouth of the Arnon (Wâdy Môjib) there were statues of a man and a donkey, and an inscription. That stream, I reflected, would probably be the northern boundary of the kingdom of Mesha, King of Moab, and Dhiban, where the Moabite stone was found, is, as the crow flies, only about 12 miles east of it. The Moabite stone bore an inscription on behalf of Mesha against the King of Israel. Why might not Mesha have put up some other monument, in a similar sense, on his boundary overlooking the Dead Sea? The man would be Mesha, the donkey the King of Israel, and the inscription, when deciphered by the learned, would tell us all about it. It would be a comforting consideration that my name would be handed down to posterity as the discoverer of this most interesting relic of antiquity. So I made up my mind to get to the spot.

After much difficulty I arranged to hire a small row-boat which is kept on the Jordan at the Greek Monastery, and we took our tents down to Jericho to make final arrangements, my wife thinking she would like to go also. One of the boatmen came from the Jordan to see us, and I was somewhat disappointed to find from his account that the statue of the man shrank to a head and the donkey became a camel. Never mind, thought I, a head will do, and perhaps the representation of the beast is so weather-worn that its identity is doubtful. It was reassuring to learn from the boatman that there was no doubt about the inscription; both head and camel and, indeed, all the back of the cave being covered with writing. That was the main point. How much more important, I thought, is an inscription than a rude sculpture of any kind!

We removed our camp to the Dead Sea, and about 4 p.m. on February 27th the boat issued from the Jordan and came up to us. It was provided with oars and a little lateen sail, the yard and mast being formed out of small trees floated down the Jordan. There were three boatmen, and there was only room for two more persons in the boat if food and other necessaries were to be carried.

So we decided that I and our cook should alone go, and that my wife and the dragoman should go back to Jerusalem with the camp the next morning.

Telling them that I expected to get back to Jericho the next evening, we set sail. A good north breeze blew and we were carried briskly to the south. I hoped to get down to Môjib (less than 20 miles) that night. But at sunset the wind dropped, and the men took to the oars. I observed that two of them seemed very feeble and fever worn, and the remaining one alone seemed capable of managing the boat—although he looked but a poor creature after all. I found that they had not brought either food or water with them. I had what I thought enough for two or three days, and a *girby* of water. The night being very dark, and it being obvious that we could not get to Môjib that night, at 7.45 p.m. we landed at the Zerka Mââîn, at a little beach about 6 feet wide, on the other side of which were tall reeds growing out of a kind of swamp at the mouth of the stream. We groped about for some driftwood, made a fire, and cooked a little food. I was too much excited with the thought of what I was to see the next day to sleep well, and scarcely reflected what our condition would be if a west wind should cause the water of the Dead Sea to flow over the beach on which we lay. However, the night was still.

Before daylight we made up the fire, boiled some coffee, and started at dawn. A strong north wind arose and a rough sea, and we soon had to lower the sail we had set and row. We passed high precipitous cliffs, mountain gorges, and clefts containing small palm trees, but it looked as if the lake were inaccessible from the mountains inland. Presently the cook and the two most inefficient boatmen became sea-sick, and lay at the bottom of the boat, leaving little room for the legs of the remaining man and myself. He gave me to understand that he felt ill, and produced a bottle of arak, from which he took a drink. I began to wonder what would happen if he became intoxicated, but his drink seemed to put a little more vigour into him, and I persuaded him not to take any more for the present. He and I rowed and steered alternately. After two hours the wind dropped, the sea-sick men revived, and in three and a half hours we reached the north bank of the Arnon. I found here the same thick growth of reeds or bamboos and swamp-like

appearance as at the mouth of the Zerka Mâaîn. All but the best boatman got on shore, and one of those who landed carried me on his back across a stream, which was a little above his knees. I then found myself on a little island in the middle of the Arnon with another branch of it to the south. This was too deep to enable the man to carry me over it, so I undressed, hung up my clothes on a tree, and, getting one of the men to carry the hand camera and materials for making an impression of the inscription, waded across the second branch, the water of which came up to my arm-pits.

Having landed on the south side I asked excitedly for the stone head and the camel, and was led along a narrow beach which began at the stream, over sharp stones which cut my naked feet, while the hot sun beat on my bald head, for about a quarter of a mile, and then up the cliff side to a small grotto of red sandstone. The man who was guiding pointed out a round piece of light grey coloured rock fused into the back of the red sandstone of the cave by some freak of nature, and said that was the man's head, and then to a strange shaped rock—like some I have seen at Petra—in the rough form of a small four-legged table, which he declared to be the camel. Well, but the writing! Waving lines on the sandstone—again like what is to be seen at Petra—were all he could offer me by way of inscription. Seeing at once that the whole thing was a delusion I began to wonder for the first time how we were to get back, for the north wind had begun to blow again, and we had left the boat bumping on the shore. I hurried back to the south stream, waded across to the island, put on my clothes again, was carried across the north stream, pushed through the cane-break to the shore, and found the boat gone! I shouted, but there was no answer, looked up and down and across the Dead Sea, up at this house of ours, which I could see distinctly 4,000 feet above me and 15 miles off, sent the men north and south to look for the boat, and sat down to enjoy the full flavour of the taste of solitude on the shore of this strange lake, on the border of which there is not a house, and the last thing which one would wish to see would be a man. I never felt so out of the world.

The Gorge of Môjib, where it joins the Dead Sea, is as narrow as the Sik at Petra, of which it reminded me; the cliffs of the same purplish red sandstone. It seemed impossible to ascend it,

except in the river bed, and I thought I heard the sound of a waterfall. The men I had sent to look for the boat returned, having failed to find it. At last the boatman whom we had left in the boat appeared scrambling along the face of the cliffs from the north. He had taken the boat to a small cove to shelter it from the wind. He led us all back to this place. There we got into the boat again and pushed off, keeping close to the winding cliffs to get as much shelter from the wind as possible, and making very slow progress. But the same men as before getting sea-sick again, and it being impossible in my tired state to make headway without their help in rowing, we put into a very little creek from which magnificent precipitous cliffs of red sandstone arose. I landed and lay in a few inches breadth of shade, which a ledge of rock afforded from the hot sun, and looked wistfully up at my house. I asked for some water and was told that the *girby* was empty, so I sent two of the men to scramble back to Môjib and fill it at the stream, which they had forgotten to do while we were there. This delayed us for two hours; but on their return the wind changed to the south, and we had a little spell of sailing. Then it dropped, then it blew so hard that we had to take in the sail and seek for a creek, hard to find in the dark, for it was now night, but at 8 p.m. we found a little shelter and a resting place for our tired bodies on a ledge of rock. Here we found a little driftwood, made a fire and coffee, and slept.

I awakened about 1 a.m. of the third day shivering and feeling very ill. I suppose the sun on my bare head at Môjib had given me a touch of fever. I thought that we should never get past those cliffs, where if an oar broke we might be dashed to pieces; food getting low; water nearly exhausted; sun overpowering; one boatman only of use, and he but of little. What should we do! However, reflecting that all depended on my self-possession, with the help of a little coffee I picked up my courage, and at 3 a.m. we pushed off once more, the wind being then light, and we got well away from the coast. Then the wind suddenly shifted to the east and blew stronger, and the sea broke over the boat, making hands and face sticky with the salt. The three invalids sank again to the bottom of the boat, and the remaining one cried out that if we could not get back to the east coast again we should be blown across to the west side and dashed to pieces there, and all

be drowned. My idea was to tack to the north-west and then to the north-east as long as we could keep the sail up. But I thought he would know better than I, so sail was taken in, and we pulled as hard as possible back to the east side. It was very hard work, but we succeeded at last in getting into another little creek, where we rested until 7.30 a.m., when the wind falling lighter, though more to the north, we continued our return voyage, pulling round the windings of the coast so as to avoid the wind. At 10.30 we were past the Zerka Mââîn, and the wind blowing hard from due north we took shelter in another creek, where we made a fire of driftwood and cooked some rice. At 11.15 pushed forth again, creeping round the headlands, but soon after 2 p.m. found it impossible to make headway against wind and sea.

Being exhausted with rowing, and finding no other creek available, we had to put back to the place we had last left, where, from the appearance of reeds which we had noticed, we expected to find some fresh water, as the *girby* was again empty. But we found the watercourse dry, except a small pool that was brackish and covered with flies. Here we found many locusts and some footmarks of gazelles. I sent the boatmen to the north, across the face of the cliffs, to look for water, and I thought if they could not find any, we had better here abandon the boat and endeavour to climb up the hills, by a gorge which was near, in search of a Bedawin encampment, the sheikh of which I knew, for I judged that we were now below Ikmara. Nearly all the rice was finished, there was no other food, and only three or four matches were left. At last the men returned with the *girby* full of water. I could see my house lit up by the sunset, and at nightfall made up a big bonfire, hoping my wife might see it, and take it as a signal that we were making way, for I knew how anxious she would be getting. I awoke the men at midnight, the wind having dropped, and having made up the fire so as to give light to enable us to put our things into the boat, off we pushed once more, and pulled all day at the oars.

At 4 a.m. of the fourth day the boat got on to the top of a sunken rock, and we had much difficulty in getting her off. She had struck several rocks before, and had been leaking, and the men had been bailing out before this, but the leak now became heavier. However, I thought we could not sink in the Dead Sea

because of the buoyancy of the water. But soon after I found the boat going round and round, and it struck me that we must be off the mouth of the Jordan, which, owing to recent heavy rains, I knew to be very full of water. I tasted the water and found it fresh, and felt that if we could not get out of the stream we should indeed sink, near as we were to the north shore. We got entangled amongst floating trees brought down the river, and the rush of the stream seemed to hold us in its clutch, and prevent our crossing it. We saw a fire on the shore; the men said when they went in search of water they had seen a tent there in the distance; we heard a dog bark, the cook said it was our dog, and I thought perhaps after all my wife had remained in the same spot with the camp awaiting my return. I fired a few shots as a signal, but there was no response, and I was stopped from continuing my fusilade by the remaining cartridges being wet. Then all being tired out we made fast to a tree which seemed to be attached to the ground in some way, and devoted all strength to bailing out. At 5.30 the remnant of a moon rose, and soon after the first faint light of dawn came, and seeing now where we were, close to the west bank of the mouth of the Jordan, we managed to get clear at last of the river and landed on the west side of it in a very exhausted state. Shortly after some French Dominican monks came down to the Dead Sea to bathe. I walked to them and they were kind enough to give me some food and a little wine, and so my troubles came to an end.

It is said that the Greek Patriarch has recently obtained from the Sultan the sole right of placing steamers on the Dead Sea. A small one I have just seen being drawn upon a truck past the walls of Jerusalem, and I am told that there is a larger one at Jaffa waiting permission to proceed. It is said that the latter is 12 metres long, has a speed of 14 knots, and is to be available for travellers. May they discover what I failed to find!

Ras Abu Kharoub,
Mount Scopus, Jerusalem,
May, 1900.

THE SUN STANDING STILL ON GIBEON, BY THE REV. W. F. BIRCH, M.A.

Considered by the Rev. W. Collins Badger, M.A.

Mr. Birch writes: "The sun's appearing near Gibeon shows that it was still early," and yet he makes Joshua pray for light in the early hours of the day! Would any general act thus—pray for daylight near dawn? Never!

Next he writes: "Joshua's voice fissured it, *i.e.*, heaven's blackness (whatever fissuring it may mean), and so for Israel neither sun nor moon were obscured at all for the whole day." But Joshua never spoke to the clouds or heaven's blackness, for after speaking to Jehovah he says before the eyes of Israel, *Sun over Gibeon tarry*, not *clouds* divide! Is it certain or likely that those eyes which were looking on the sun saw any *clouds?* We must then regard the fissuring clouds as a fiction!

Further he writes: "And the sun stood still, and the moon stayed, simply mean, according to Biblical usage, that the black clouds never obscured the disk of the *sun*." What Biblical usage? Surely the Bible does not tell us that speaking to the sun is speaking to the clouds! Sad, if such were Biblical usage! Also your correspondent describes the five Kings and all their hosts as "making no stand anywhere, but butchered like sheep." What! when the battle was a final struggle—a crisis in the history of the Amorites and of Israel? When it pleased God to give especial encouragement to Joshua—Joshua x, 8: "Fear them not," and we are bound to confess that a long *stubborn contest* took place from the words, "the Lord discomfited them before Israel and slew them with a *great slaughter at Gibeon*." How could such a slaughter occur with *warriors like sheep?* Evidently at *Gibeon* the brunt of the battle took place, and it was not till the going down to Bethoron that "heaven's blackness gathered," "and the Lord cast great stones from heaven" upon Israel's discomfited enemies! I will not dwell upon the confusion of figure and fact, thus Jeremiah, xv, 9: "*Her* sun is gone down," and the *sun in* the heavens going down; but only notice the words, "the sun, instead of apparently rushing behind the clouds, stayed in the midst of heaven and hasted not to go down about a whole day."

According to these words, then, the sun stood overhead with scorching heat about the whole day—for some 10 or 12 hours, and then started afresh!

Singular explanation! particularly after blaming Ben Sirach as foolish for writing that the notion (Ecclus. 46, 4) "that one day was as long as two was *Biblically gratuitous*"! On the contrary, I distinctly affirm that this fact is *Biblically necessary* if we translate the Hebrew words in their simple and proper sense. Has your correspondent, Mr. Editor, read my challenge in your magazine for July, 1899? If so, why did he not attempt to prove that translation wrong? I requested any Jew or Hebrew professor to do so, but have had no reply. The late excellent Dean Stanley, in his work on Palestine, wrote: "If the sun were over Gibeon it would be in the east, if in the midst of heaven it would be *overhead*." He did not observe that the Bible says it was *both*, and how could the sun be in two places at the same time? Perhaps, then, your correspondent has not patiently considered my challenge, and, like the Dean, written hastily! All who rest their hopes on the Word of God will wish the translation to be as perfect as possible. Allow me, then, once more to give the true meaning of the Hebrew words and the right translation: "Then Joshua is speaking to Jehovah, and says before the eyes of Israel, Sun (or sunlight) over Gibeon rest (or tarry) and moon in the valley of Ajalon, and the sun is tarrying, and the moon staid till the nation is avenged of their enemies. Is not this written in the book of the upright that the sun is tarrying in *the half of the* heavens, and does not *hasten to set* for a complete day, and there has not been as this day before it or after it?" Instead therefore of the sun standing still overhead, and exhausting Joshua's men and prostrating them with this portentous miracle, the Bible affirms that the sun was moving, for "did not hasten or hurry to set" implies quiet, continuous movement, and not the sudden cessation of light—no long twilight as in the East—the man does not hasten cannot mean he stands still. So with the sun, its ordinary motion continued, and it remained visible the whole day, so making, as Ben Sirach witnesses, some 2,500 years ago, "one day as long as two."

So far, then, from the crash and ruin of the universe according to the Dean and Bishop Colenso, the miracle, according to the Hebrew, concerns the rays of light; somehow it pleased

Almighty God to keep the sun visible the night through. How different an exercise of Almighty power from the sudden check of the earth in her course! An archdeacon, however, wrote to me, not objecting to the translation, but saying that I should have to show to scientific unbelievers *how* this continuance of light was effected—an unreasonable demand for me to explain the miracle! But with St. Paul, I must say, "Bear with me in my folly," and I will copy an account of a natural phenomenon from the "Gallery of Nature and Art," vol. iv, p. 521. M. Helvidius, February 5th, 1674, wrote that near Marienburg, in Prussia, he saw, "under the sun near the horizon a somewhat dilute small cloud, beneath which there appeared a mock sun, of the same size to sense with the true sun, and under the same verticle of a somewhat red colour, soon after the true sun descending more and more to the horizon towards the said cloud, the spurious sun beneath it grew clearer and clearer, so that the reddish colour in that apparent solar disk vanished, and put on the genuine solar light."

If, then, there be a possibility in nature of a mock sun, how can we doubt that Almighty Power could somehow continue the light of the sun the night through? The Hebrew demands it, the occasion was momentous, the destiny of Israel hung on that battle; for if conquered and annihilated, where the promises? the Hebrew dispensation? the Christian? the world's regeneration? The sun—the heathen's god—favouring their enemies, must have added terribly to the fears of the Amorites and completed their dispersion, so preventing innumerable battles. In wisdom, therefore, and in mercy was that day prolonged.

RESULTS OF METEOROLOGICAL OBSERVATIONS TAKEN AT TIBERIAS IN THE YEAR 1899.

By James Glaisher, F.R.S.

The numbers in column 1 of this table show the highest reading of the barometer in each month. The highest appear in the winter, and the lowest in the summer months. The maximum for the year was 31·082 inches, in January, and the next in order 30·935 inches, in November.

In column 2 the lowest reading in each month is shown; the minimum for the year was 30·260 inches, in August, and the next in order 30·292 inches, in June.

The range of readings in the year was 0·822 inch. The range in the morning observations was 0·748 inch, being 0·210 inch greater than the range at Jerusalem.

The numbers in the 3rd column show the extreme range of readings in each month; the smallest was 0·174 inch, in July, and the next in order 0·304 inch, in September; the largest was 0·626 inch, in January, and the next in order 0·490 inch, in November.

The numbers in columns 4 and 5 show the mean monthly reading of the barometer at 8 a.m. and 4 p.m., and in column 6 the lower reading at 4 p.m. than at 8 a.m.; the smallest difference between these two readings was 0·048 inch, in December, and the next in order 0·058 inch, in February; the largest was 0·100 inch, in May, and the next in order 0·094 inch, in September. In England, in January, the readings at 8 a.m. and 4 p.m. are practically the same; in all other months the reading at 4 p.m. is lower than at 8 a.m.; the greatest difference is 0·025 inch, in June. The mean for the year at Tiberias was 0·076 inch, being about four times greater than in England.

The numbers in the 7th column show the mean monthly pressure of the atmosphere; the highest was 30·772 inches, in January, and the next in order 30·721 inches, in November; the lowest was 30·407 inches, in July, and the next in order 30·427 inches, in August. The mean for the year was 30·595 inches.

The highest temperature of the air in each month is shown in column 8. The first day in the year the temperature reached 90°

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0 feet above the level of the Sea of Galilee, open on all sides.

tion.	4 p.m.										Rain.	
	Degree of humidity.	Weight of a cubic foot of air.	Mean reading.			Vapour.			Degree of humidity.	Weight of a cubic foot of air.	Number of days on which rain fell.	Amount collected.
			Dry bulb.	Wet bulb.	Dew point.	Elastic force of.	Weight in a cubic foot of air.	Additional weight required for saturation.				
.	°	grs.	°	°	°	in.	grs.	grs.	°	grs.		in.
J	66	552	59·5	53·8	48·8	·345	3·9	1·8	68	548	11	4·16
F	71	547	64·0	56·7	50·7	·368	4·1	2·5	62	541	11	2·55
M	56	541	70·8	59·3	50·5	·368	4·0	4·2	49	534	5	1·61
A	56	533	79·2	63·5	52·7	·399	4·3	6·4	40	524	4	0·78
M	50	524	90·1	68·6	55·1	·435	4·6	10·3	31	511	1	0·07
J	50	517	91·3	70·4	57·5	·472	4·9	10·5	33	500	0	0·00
J	55	514	93·8	73·6	61·4	·544	5·6	11·0	34	506	0	0·00
A	55	514	93·8	74·9	63·4	·584	6·1	10·5	36	507	0	0·00
S	53	516	92·1	73·4	61·9	·553	5·8	9·9	37	509	0	0·00
O	50	525	85·3	68·5	57·5	·476	5·0	7·9	38	518	2	0·38
N	51	536	74·2	62·4	53·8	·417	4·5	4·7	49	531	4	0·91
D	59	546	64·2	55·7	48·9	·342	3·8	2·9	57	542	13	6·64
)	56	530	79·9	65·1	55·2	·442	4·7	6·9	45	523	sum. 51	sum. 17·10
	21	22	23	24	25	26	27	28	29	30	31	32

was on March 25th, and there was one other day in March on which the temperature reached or exceeded 90°; in April on 11 days; in May on 22 days; in June, July, and August it reached or exceeded 90° on every day; in September on 28 days; in October on 11 days; and in November on two days; thus the temperature reached or exceeded 90° on 168 days during the year. At Jerusalem the temperature did not reach 90° till May 10th, and there were only 20 days in the year on which the temperature was as high as 90°. At Tiberias the temperature was 100° on May 8th, and reached or exceeded 100° on eight other days in this month; in June on six days; in July on 10 days; in August on nine days; in September on seven days; and in October on three days; thus on 44 days in the year the temperature reached or exceeded 100°. The highest temperature in the year at Tiberias was 114°, on June 24th; at Jerusalem it was 99°, on June 25th.

The lowest temperature of the air in each month is shown in column 9.[1] The lowest in the year was 37°·0, on February 21st; the next lowest was 40°, on both January 3rd and 21st; and from February 21st to the end of the year there was no temperature so

[1] In a letter from Dr. Torrance, dated January 23rd, 1900, he states:—

"I am sorry about the error in minimum thermometer of last year. On February 21st I found the spirit column broken in the minimum thermometer, and the readings too low by 10 degrees, and made this correction in the record from January 1st to February 21st.

"The observations for January, February, March, and April were taken by my late dispenser, Mr. David Lawin, who has had to retire on account of illness. The observations afterwards were taken by our Scripture-reader, Mr. James Cohen; now they are being taken by my new dispenser, Mr. R. Nassar.

"On January 5th, about 2 a.m., we were awakened by an earthquake, which must have lasted from five to ten seconds. I have felt several shocks during my fifteen years' residence here, but this was the most severe. No damage was done to buildings, as far as I can ascertain, but many people fled into the fields and remained there a considerable time in fear and trembling, some of whom afterwards became ill from the effects of the exposure. From correspondence, I learn the earthquake extended to Mount Lebanon, to Jerusalem, and to the coast of the Mediterranean.

"A bridge of good stonework has now been built over the Amud on the way from Tiberias to Safed, at the northern end of the plain Genessaret. It was very needful, as many lives have been lost in that stream. It is rather low, however, as already this year, after a heavy rainfall, the water rose above the level of the bridge. The Government contemplate building another bridge in the plain of Genessaret, over the Rubudeyeh."

low as 40°, the nearest approach being 45°, which occurred on each of the nights of February 22nd, March 2nd, and December 23rd and 24th; thus the temperature was as low or lower than 40° on only three nights during the year. At Jerusalem the lowest in the year was 31°, on January 18th; and there were 54 nights in the year when the temperature was as low or lower than 40°.

The yearly range of temperature was 77°; at Jerusalem it was 68°.

The range of temperature in each month is shown in column 10, and these numbers vary from 28° in August to 52° in March. At Jerusalem the range varied from 23°·5 in January to 49° in both April and May.

In column 11 the mean of all the high day temperatures in each month is shown. The lowest was 63°·4, in January, being 13°·1 higher than that at Jerusalem, the next in order were 67°·9, in February, and 68°·3, in December; the highest was 99°·8, in July, and the next in order were 98°·9, in August, and 97°·5, in June. At Jerusalem the lowest were 50°·3, in January, 55°·3, in December, and 55°·9, in February; the highest were 85°·4, in August, 85°·3, in September, and 84°·7, in July. The mean for the year at Tiberias was 84°·1; at Jerusalem it was 71°·8.

In column 12 the mean of all the low night temperatures in each month is shown. The lowest was 43°·6, in January, and the next in order were 46°·4, in February, and 54°·2, in December; the highest was 77°·2, in August, and the next in order were 75°·6, in July, and 75°·5, in September. At Jerusalem the lowest were 38°·2, in January, 42°·0, in February, and 44°·1, in December; the highest were 64°·8, in September, 64°·4, in August, and 64°·0, in July. At Tiberias the mean for the year was 63°·7; at Jerusalem it was 54°·1.

In column 13 the mean daily range of temperature is shown in each month; the smallest was 14°·1, in December, the next in order were 15°·0, in November, and 16°·9, in October; the greatest was 26°·1, in May, and the next in order were 24°·2, in July, and 23°·9, in June. At Jerusalem the smallest were 11°·2, in December, 12°·1, in January, and 13°·8, in November; the greatest were 24°·5, in May, 21°·2, in June, and 21°, in August. At Tiberias the mean daily range for the year was 20°·4; at Jerusalem it was 17°·7.

The mean temperature of the air, as found from the maximum and minimum temperatures only, is shown in each month in column 14; the lowest was 53°·5, in January, and the next in order 57°·2, in February, and 61°·2, in December; the highest was 88°·1, in August, and the next in order 87°·7, in July, and 86°·2, in September. At Jerusalem the lowest temperatures were 44°·2, in January, 49°·0, in February, and 49°·7, in December; the highest were 75°·0, in September, 74°·9, in August, and 74°·3, in July. At Tiberias the mean temperature increased month by month to the maximum in August, then decreased month by month to the end of the year. At Jerusalem the mean temperature increased month by month to the maximum in September, then decreased month by month to the end of the year. At Tiberias the yearly value was 73°·9; at Jerusalem it was 62°·9.

The numbers in the 15th and 16th columns are the mean readings of a dry and wet-bulb thermometer, taken daily at 8 a.m. If those in column 15 be compared with those in column 14, it will be seen that those in column 15 were a little higher in January, February, March, and April, and a little lower in the remaining months. The mean reading of the dry-bulb for the year was 73°·8, and that of the mean temperature, 73°·9, and therefore the mean temperature of the year may be approximately determined by a single reading of the thermometer taken daily at 8 a.m.

The numbers in the 17th column are the temperature of the dew-point, or that temperature at which the air would be saturated by the quantity of vapour mixed with it; the smallest difference between these numbers and those in column 15 was 9°·6, in February, and the largest 20°·3, in May.

The numbers in column 18 show the elastic force of vapour, or the length of a column of mercury in inches corresponding to the pressure of vapour; the smallest was 0·302 inch, in January, and the largest 0·694 inch, in August.

In column 19 the weight in grains of the water in a cubic foot of air is shown, it was as small as 3·4 grains in January, and as large as 7·3 grains in July.

In column 20 the additional quantity of vapour required to saturate a cubic foot of air is shown; it was as small as 1·7 grains in both January and February, and as large as 6·3 grains in September.

The numbers in column 21 show the degree of humidity of the air, saturation being represented by 100; the largest number is 71, in February, and the smallest 50, in each of the months of May, June, and October.

The numbers in column 22 show the weight in grains of a cubic foot of air, under the mean atmospheric pressure, temperature, and humidity of the air; the largest number was in January, decreasing to the smallest in both July and August, then increasing again to the end of the year.

In columns 23 and 24 are the mean readings of a dry and wet-bulb thermometer taken daily at 4 p.m. By comparing the numbers in column 15 with those in column 23, the increase of temperature from 8 a.m. to 4 p.m. is shown; in January the increase was only 3°·0, and in May it was as much as 10°·3.

In column 25 the temperature of the dew-point at 4 p.m. is shown. By comparing these numbers with those in column 17, it will be seen that the temperature of the dew-point in the months of January, February, March, November, and December was higher than at 8 a.m., and lower than at 8 a.m. in all other months. The numbers in this column are smaller than those in column 23 by 10°·7 in January, increasing to 35° in May, then decreasing to 15°·3 in December; these differences between the temperature of the air and that of the dew-point are very much larger than those at 8 a.m., being in some months more than twice as large.

On several days during the months of April, May, June, July, August, September, and October, at 4 p.m., the reading of the dry-bulb thermometer exceeded that of the wet by 25° or more, and the temperature of the dew-point was from 39°·0 to 53°·5 lower than the temperature of the air as shown by the following table:—

Month and Day.	Reading of		Temperature of the Dew-Point.	Temperature of the Dew-Point below Dry.
	Dry.	Wet.		
	°	°	°	°
April 16	91·0	66·0	50·5	40·5
17	93·0	67·0	50·1	42·9
18	91·0	66·0	50·5	40·5
21	94·0	69·0	54·0	40·0
May 9	100·0	70·0	52·9	47·1
10	100·0	70·0	52·9	47·1
11	98·0	68·0	50·6	47·4
12	96·0	71·0	56·2	39·8
14	91·0	65·0	48·9	42·1
18	89·0	64·0	48·3	40·7
19	95·0	64·0	45·4	49·6
26	102·0	72·0	55·2	46·8
27	105·0	71·0	52·3	52·7
28	102·0	77·0	63·0	39·0
June 10	93·0	67·0	52·1	40·9
19	97·0	69·0	57·0	40·0
20	101·0	73·0	57·0	44·0
23	101·0	75·0	60·2	40·8
24	109·0	74·0	55·5	53·5
25	101·0	70·0	52·3	48·7
July 2	99·0	69·0	51·6	47·4
6	99·0	74·0	59·5	39·5
13	95·0	70·0	55·0	40·0
Aug. 29	99·0	73·0	57·9	41·1
Sept. 20	103·0	71·0	53·0	50·0
22	97·0	72·0	57·2	39·8
Oct. 4	98·0	73·0	58·5	39·5
6	98·0	71·0	55·3	42·7

In column 26 the elastic force of vapour is shown, and by comparing the values with those in the same month at 8 a.m., we find that it was smaller at 4 p.m. in the months of April, May, June, July, August, September, and October, and larger than at 8 a.m. in the remaining months.

In column 27 the amount of water in a cubic foot of air at 4 p.m. is shown; the amount was less than at 8 a.m. in the months from April to October, and larger than at 8 a.m. in the remaining months.

In column 28 the amount of water required to saturate a cubic foot of air was as large as 11 grains in July, and as small as 1·8 grain in January.

In column 29 the degree of humidity is shown; the driest

months are April to October, the value for these months varying from 31 in May to 40 in April.

In column 30 the weight of a cubic foot of air is shown; the smallest was 500 grains, in June, and the largest 548 grains, in January.

In column 31 are given the number of days of rain in each month; the greatest number was 13, in December. The total number in the year was 51. At Jerusalem rain fell on 59 days.

In column 32 the monthly fall of rain is given. The heaviest fall of rain on one day in the months from January to March was 1·10 inch, on January 14th, and the next in order, 0·95 inch, on February 6th. No rain fell from May 17th till October 22nd, making a period of 157 consecutive days without rain. The fall of rain on December 25th was 1·62 inch, and on the 23rd 1·02 inch fell. The heaviest monthly fall in the year was 6·64 inches, in December, and the next in order 4·16 inches, in January. The total fall for the year was 17·10 inches; at Jerusalem the total fall for the year was 22·43 inches.

RESULTS OF METEOROLOGICAL OBSERVATIONS TAKEN AT JERUSALEM IN THE YEAR 1899.

By James Glaisher, F.R.S.

The numbers in column 1 of this table show the highest reading of the barometer in each month; of these the highest, as usual, are in the winter, and the lowest in the summer months; the maximum for the year was 27·690 inches, in January, and the next in order 27·619 inches, in November. The highest reading in the preceding 38 years, viz., 1861 to 1898 inclusive, was 27·816 inches, in December, 1879, and the next in order 27·800 inches, in November, 1870.

In column 2 the lowest reading of the barometer in each month is shown; the minimum for the year was 27·152 inches, in February. At Tiberias the reading on this day at 8 a.m. was 30·455 inches. The next in order at Jerusalem were 27·171 inches, in December, and 27·179 inches, in August. The lowest reading in the preceding 38 years was 26·860 inches, in March, 1893, and the next in order 26·970 inches, in March, 1896.

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Deduced ·el of the Mediterranean Sea, open on all sides.

Months.	Wind. Relative proportions of. N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Mean amount of cloud.	Rain. Number of days on which it fell.	Amount collected.
1899.											in.
January	0	4	6	2	0	7	6	6	4·1	14	6·46
February	0	2	0	2	1	6	8	9	3·6	11	3·30
March	1	4	4	3	0	6	1	12	4·8	8	3·21
April	0	7	4	1	2	0	6	10	3·3	5	1·29
May	3	5	4	6	2	3	2	6	1·9	0	0·00
June	3	2	1	2	2	2	6	12	1·6	0	0·00
July	2	0	0	0	1	0	11	17	0·4	0	0·00
August	4	1	0	0	0	2	6	18	1·6	0	0·00
September	4	5	3	1	0	0	4	13	1·0	0	0·00
October	0	7	3	0	2	6	1	12	4·1	3	0·35
November	3	13	1	3	1	4	2	3	4·4	7	1·47
December	0	3	4	2	2	6	7	7	5·1	11	6·35
Means	sum. 20	sum. 53	sum. 30	sum. 22	sum. 13	sum. 42	sum. 60	sum. 125	mean. 3·0	sum. 59	sum. 22·43
	20	21	22	23	24	25	26	27	28	29	30

The numbers in the 3rd column show the extreme range of readings in each month; the smallest was 0·169 inch, in both July and September, and the next in order was 0·218 inch, in August; the largest was 0·498 inch, in January, and the next in order 0·428 inch, in December. The mean monthly range for the year was 0·297 inch. The mean for the preceding 38 years was 0·313 inch.

The range of barometer readings in the year was 0·538 inch. The largest range in the preceding 38 years was 0·935 inch. in 1898; and the smallest 0·491 inch, in 1883.

The numbers in the 4th column show the mean monthly pressure of the atmosphere; the highest was 27·485 inches, in November, and the next in order 27·461 inches, in October; the lowest was 27·291 inches, in July, and the next in order 27·316 inches, in August. The mean yearly pressure was 27·400 inches. The highest mean yearly pressure in the preceding 38 years was 27·442 inches, in 1863; and the lowest 27·357 inches, in 1894. The mean yearly pressure for the 38 years was 27·389 inches.

The temperature of the air reached 90° on May 10th, and there were 6 other days in May when the temperature reached or exceeded 90°. In the preceding 17 years the earliest day in the year the temperature was 90° was March 25th in the year 1888; in June it reached or exceeded 90° on 6 days; in July on 2 days; in August on 2 days; and in September on 3 days; the 22nd being the last day in the year of a temperature as high as 90°. In the preceding 17 years the latest day in the year this temperature reached 90° was on October 23rd in both 1887 and 1898. The temperature reached or exceeded 90° on 20 days during the year. In the year 1898 the number of days of this high temperature was 12, and in 1887 was 73; the average for the 17 years was 36. The highest temperature in the year was 99°·0, on June 25th; the highest in the preceding 17 years, viz., 1882 to 1898, was 108°, in June, 1894.

The temperature of the air was as low or lower than 40° in January, on 26 nights; in February, on 8 nights; in March, on 7 nights; in April, on 5 nights; in November, on 1 night; and in December, on 7 nights. Thus the temperature was as low or lower than 40° on 54 nights during the year. In the year 1892, the number of nights of this low temperature was 19, and in 1894 was 113; the average of the 17 years was 55. The lowest tem-

perature in the year was 31°, on January 18th. The lowest in the preceding 17 years was 25°, which occurred on two nights, viz., December 31st, 1897, and on January 1st, 1898.

The highest temperature of the air in each month is shown in column 5. In January it was 54°·5, being 5°·7 below the mean of the 17 high day temperatures in January. The high day temperature was also below its average in February, July, August, September, October, November, and December, and above in the remaining months. The mean for the year was 82°·3, being 1°·4 below the average of 17 years.

The lowest temperature of the air in each month is shown in column 6. In January it was 31°, being the lowest in the year, and 0°·2 below the average of the 17 low night temperatures in January. The low night temperature was also below its average in April and November, and above in the remaining months. The mean for the year was 45°·3, being 0°·9 above the average of 17 years.

The range of temperature in each month is shown in column 7; the numbers vary from 23°·5 in January to 49° in both April and May. The mean range for the year was 37°·0, being 2°·3 less than the average of 17 years.

The range of temperature in the year was 68°·0. The largest in the preceding 17 years was 81°, in 1894, and the smallest, 65°·5, in the year 1885.

The mean of all the high day temperatures in each month is shown in column 8. The lowest was 50°·3, in January, being 0°·5 lower than the average. The highest was 85°·4, in August, being 3°·2 lower than the average. The mean for the year was 71°·8, or 0°·2 below the average of 17 years.

The mean of all the low night temperatures in each month is shown in column 9. The lowest was 38°·2, in January, being of the same value as the average. The highest was 64°·8, in September, being 3°·6 above the average. The mean for the year was 54°·1, or 1°·6 above the average of 17 years.

In column 10 the mean daily range of temperature in each month is shown; the smallest was 11°·2, in December, and the next in order, 12°·1, in January; the greatest was 24°·5, in May, and the next in order, 21°·2, in June. The mean for the year was 17°·7, being 1°·8 less than the average. The smallest ranges in the preceding 17 years were 9°·3, in January, 1883, and 9°·4, in

December, 1897; the greatest were 33°·8, in August, 1886, and 30° 1, in August, 1887. The smallest mean for the year was 16°·4, in 1897, and the greatest, 24°·3, in 1886.

The mean temperature of the air, as found from the mean of the maximum and minimum temperatures only, is shown in each month in column 11. The lowest was 44°·2, in January, and the next in order were 49°·0, in February, and 49°·7, in December; the highest was 75°·0, in September, and the next in order 74°·9, in August, and 74°·3, in July. The mean for the year was 62°·9, being 0°·7 above the average of 17 years The lowest mean temperatures in the preceding 17 years were 39°·8, in January, 1890, and 41°·1, in January, 1898; the highest were 81°·2, in August, 1890, and 81°·1, in July, 1888. The highest mean for the year was 63°·5, in 1892, and the lowest, 60°, in 1894.

The numbers in column 12 are the mean readings of a dry-bulb thermometer. If those in column 12 be compared with those in column 11, it will be seen that those in column 12 are a little higher in every month, the difference of the means for the year being 2°·0; the mean difference between the mean temperature of the air, and that at 9 a.m., for the 17 years was 3°·2.

For a few days in the winter months the dry and wet-bulb thermometers read alike, or nearly so, but in the months from April to October the difference between the readings often exceeded 15°, and was as large as 25° on July 6th.

In column 13 the mean monthly readings of the wet-bulb thermometer are shown; the smallest differences between these and those of the dry-bulb were 3°·0, in January, 3°·7, in February, and 3°·8, in December; the largest were 14°·6, in May, 13°·7, in September, and 12°·9, in July. The mean for the year was 55°·9, and that of the dry-bulb 64°·9.

The numbers in column 14 are the mean temperature of the dew-point, or that temperature at which the air would be saturated by the quantity of vapour mixed with it: the smallest difference between these numbers and those in column 12 was 6°·4, in January, and the next in order were 7°·6, in February, and 7°·7, in December; and the largest were 25°·1, in May, 23°·3, in September, and 22°·0, in July. The mean temperature of the dew-point for the year was 48°·9; the mean for the 17 years was 50°·1.

The numbers in column 15 show the elastic force of vapour,

or the length of a column of mercury in inches corresponding to the pressure of vapour; the smallest was 0·245 inch, in January; and the largest 0·480 inch, in August. The mean for the year was 0·352 inch; the average of the 17 years was 0·375 inch.

In column 16 the weight in grains of the water present in a cubic foot of air is shown; it was as small as 2·8 grains in January, and as large as 5·2 grains in August. The mean for the year was 3·9 grains; the average of the 17 years was 4·1 grains.

In column 17 the additional quantity of water required to saturate a cubic foot of air is shown; it was as small as 0·8 grain in January, and as large as 5·5 grains in both May and September. The mean for the year was 3·3 grains, being of the same value as the average of the 17 years.

The numbers in column 18 show the degree of humidity, saturation being represented by 100; the largest numbers appear in January, February, and December; and the smallest in May, July, and September: the smallest of all was 42 in May. The mean for the year was 58; that of the 17 years was 60.

The numbers in column 19 show the weight in grains of a cubic foot of air, under its mean atmospheric pressure, temperature, and humidity. The largest number was 503 grains in January, and the smallest 462 grains in August.

The most prevalent winds in January were S.W., E., W., and N.W.; and the least prevalent winds were N. and S.; the most prevalent in February were N.W., W., and S.W., and the least were N. and E.; the most prevalent in March was N.W., and the least was S.; the most prevalent in April were N.W. and N.E., and the least were N. and S.W.; the most prevalent in May were S.E. and N.W., and the least were S. and W.; the most prevalent in June was N.W., and the least prevalent was E.; the most prevalent in July were N.W. and W., and the least were N.E., E., S.E., and S.W.; the most prevalent in August was N.W., and the least were E., S.E., and S.; the most prevalent in September was N.W., and the least were S. and W.; the most prevalent in October was N.W., and the least were N. and S.E.; the most prevalent in November was N.E., and the least were E. and S.; and the most prevalent in December were W., N.W., and S.W., and the least was N. The most prevalent wind in the year was N.W., which occurred on 125 times, of which 18 were in August,

17 in July, and 13 in September; and the least prevalent wind was S., which occurred on only 13 times during the year, of which 2 were in each of the months of April, May, June, October, and December.

The total number of times of each wind are shown in the last line of columns 20 to 27; those winds less in number than the average of the preceding 17 years were :—

N. by 6
S.E. „ 2
S.W. „ 10
W. „ 7

and those winds greater in number than the average of 17 years were :—

N.E. by 11
S. „ 4
N.W. „ 9

The E. wind was the same in number as the average.

The numbers in column 28 show the mean amount of cloud in each month; the month with the smallest amount is July, and the largest December. Of the cumulus or fine-weather cloud, there were 2 instances; of the nimbus or rain cloud 29 instances, of which 7 were in December, and 5 in each of the months of January, February, and March; of the cirrus 9 instances; of the cirro cumulus 93 instances; of the stratus 1 instance; of the cirro stratus 28 instances; of the cumulus stratus 31 instances; and 172 instances of cloudless skies, of which 24 were in July, and 21 in each of the months of June, August, and September.

The largest fall of rain for the month in the year was 6·46 inches, in January, of which 2·58 inches fell on the 8th, and 1·89 inch on the 9th. The next largest fall for the month was 6·35 inches in December, of which 1·31 inch fell on the 27th, 1·19 inch on the 20th, and 1·13 inch on the 6th. No rain fell from April 6th till October 12th, making a period of 188 consecutive days without rain. The total fall of rain for the year was 22·43 inches, being 3·88 inches below the average of 38 years, viz., 1861 to 1898. The number of days on which rain fell was 59, being 3 more than the average.

LIST OF CASTS AND WAX IMPRESSIONS OF STAMPED JAR-HANDLES.

Sent to London by Dr. Bliss, April 27th, 1900.

Abbreviations :—T.J. = Tell ej Judeideh.
T.S. = Tell es-Sâfi.
T.Z. = Tell Zakarîya.

1. Royal stamp "Shocoh." T.J.
2. The same. T.J.
3. Royal stamp "Memshat." T.J.
4. Royal stamp "Memshat." The stamp has been used twice, producing some doubling of letters. I shall send another of same. T.J.
5. Royal stamp. Probably "Ziph" stamp was clearly used twice. In engraving the *yod* on seal the engraver appears to have been confused in attempting to reverse the letter. T.J.

5A. A second cast of 5.

6. Small four-winged eagle, with defaced lettering above.

7. T.J. (*See* p. 220.)

8. T.J. (*See* p. 219.)
Upper line imperfect, but the seal appears to be the same with the one shown on p. 95, April 2, 1900.

9. T.J. (*See* p. 220.)

10. Upper line illegible. The last symbol of lower line appears to be an ornament (wheat sheaf?) and not a letter. T.J. (*See* p. 221.)

11. T.J. (*See* p. 221.)

11A. Second cast of 11.

12. Illegible personal name, seal most imperfectly stamped.
13. Royal stamp "Hebron," broken at bottom. T.Z. (Wax.)
14. Royal stamp. Place name illegible. T.Z. (Wax.)
15. Royal stamp. T.Z. Much defaced. Place name taken to be Memshat.
16. Royal stamp "Shocoh." T.Z.
17. Royal stamp, perhaps "Ziph." T.Z. (Wax.)
18. Royal stamp "Hebron." T.Z. (Wax.)

THE

PALESTINE EXPLORATION FUND.

NOTES AND NEWS.

The Annual Meeting of the General Committee was held at the Office of the Fund, 38 Conduit Street, on Tuesday, July 17th. For report, *see* p. 305.

The Committee desire to draw special attention to the last sentence of the Treasurer's report, that the present year has been the worst the Fund has ever experienced during its more than 30 years' existence. Spite of all the Fund has accomplished in the past, and of all the useful labour that still awaits it in the future for the elucidation of the facts and truths recorded in Holy Writ, there is danger that the century will close with a deficit. An earnest appeal is made to subscribers and all friends of Biblical study for help to avert so great a misfortune. As we go to press the adverse balance against the Fund amounts to over £300.

The excavations at Tell Sandahannah were brought to a close on August 31st, when the party returned to Jerusalem. It is impossible to include the whole of the reports of Dr. Bliss and Mr. Macalister in the present issue of the *Quarterly Statement*, and the publication of the full reports, together with numerous plans and drawings which accompany them, has therefore to be deferred.

Dr. C. Schick sends the following:—

A New Convent at Urtâs.—A few years ago a Roman Catholic Order in South America bought some of the gardens of Urtâs and

a plot of ground on the southern slope of the valley. They have since been employing the villagers in blasting stones and building a convent for nuns of the Order "Sisters of the Closed Garden." There is to be a church and a court surrounded with cloisters, the floor of which is about 50 feet above the level of the gardens in the valley. To get room for these buildings on the steep mountain side a strong wall was built up to that height, and the empty space created by it filled up with stones and earth, forming a terrace, in which are cisterns, cellars, &c. By blasting away the rock a scarp 48 feet high was formed on the side of the hill, which has been protected on the upper edge and also on the east and west sides with a wall. The convent itself is to be two or more stories high. On one side a broad flight of steps leads down to the gardens, and at the middle of the building a stone bridge with many arches leads at a great height over the gardens and across the valley to the slope of the northern side, and from there a carriage road will be made leading up to the pools of Solomon, and there joining the Jerusalem–Hebron road, so that one may drive from Jerusalem to the gate of this convent, or even into its courtyard. The number of nuns to be lodged there I cannot say. They will come over from South America. As the stones quarried on the spot are not good for the outsides of the building, a zigzag road up the mountain has been made, and good stones are brought from a spot on the south-east. The appearance of Urtâs has been entirely changed, and it has now quite a picturesque aspect.

Hindrance to the Navigation on the Dead Sea.—It was formerly reported by me that the Greek Convent or their Patriarch of Jerusalem had, with great expense and, as it seemed at the time, with the consent of the local authorities, brought two ships, one from Hamburg, the other from Greece, for use on the Dead Sea. But a Commissioner of the Sultan has protested against this, as it seems by direct order of the Sultan, who considers the whole Valley of the Jordan, with its waters and lakes, as his own private property, and for several years has had there his officers as managers—one at Jericho, who often resides at Jerusalem, others higher up the valley, especially at Bethshan, where buildings have been erected, and many trees planted. I was told that the plea that though the land was His Majesty's property the water should be free, was answered by the remark that navigation on the surface of the sea would demand stations

and warehouses on the shore, and that this will not be granted. So the matter stands, and the boats are in danger of becoming rotten. However, the Greek Convent, being subjects of the Sultan, hope that in course of time a way will be found to obtain the issue of an Imperial firman, and that then navigation will begin.

A Rock Altar at Petra.—Professor Robinson, of Chicago, was here in the earlier part of this year, and made many excursions beyond the Jordan to Madeba, Kerak, Petra, and elsewhere. On his return he told me that in the neighbourhood of Petra he had visited an ancient "high place" with a rock altar, but as he was not able to make a close examination, he left this to another American Professor, Professor Curtiss, who is staying longer in the country. The latter also came to see me, and described the altar[1] as well as the scheme of a work which he intends to write. This altar at Petra seems in several respects to resemble the rock altar at Artuf, described by the Rev. J. E. Hanauer in the *Quarterly Statement*, 1885, p. 183, and 1887, p. 57; and by me in the "Zeitschrift des deutschen Palestin a-Verein," 1887, pp. 135–159.

The concluding volume of Professor Ganneau's "Archæological Researches in Jerusalem and its Neighbourhood" has been published and issued to subscribers. This completes the set of four vols. as advertised under the title "Survey of Palestine." There are only eight sets left of the first 250 copies of this valuable work. Those who wish to secure a set at £7 7*s*. before the price is raised should fill up the form and send it to the Secretary of the Fund.

In order to make up complete sets of the "Quarterly Statement," the Committee will be very glad to receive any of the back numbers.

Dr. Bliss's detailed account of his three years' work at Jerusalem, published as a separate volume, with the title "Excavations at Jerusalem, 1894-1897," and copiously illustrated with maps and plans, may be procured at the office of the Fund. Price to subscribers to the work of the Fund, 8*s*. 6*d*., post free.

[1] *See* p. 350.

The "Flora of Syria, Palestine, and Sinai," by the Rev. George E. Post, M.D., Beirût, Syria, containing descriptions of all the Phaenogams and Acrogens of the region, and illustrated by 441 woodcuts, may be had at the office of the Fund, price 21*s.*

The income of the Society from June 25th, 1900, to September 22nd, 1900, was—from Annual Subscriptions and Donations, including Local Societies, £162 11*s.* 10*d.*; from Lectures, £1 2*s.* 0*d.*; from sales of publications, &c., £124 14*s.* 8*d.*; total, £288 8*s.* 6*d.* The expenditure during the same period was £589 6*s.* 8*d.* On September 22nd the balance against the Fund was £20 3*s.* 10*d.*

Subscribers in U.S.A. to the work of the Fund will please note that they can procure copies of any of the publications from the Rev. Professor Theo. F. Wright, Honorary General Secretary to the Fund, 42, Quincy Street, Cambridge, Mass.

The following gentlemen have kindly consented to act as Honorary Local Secretaries:—

The Rev. Francis Knowles, Gimingham Rectory, North Walsham, for Norwich, in place of the Rev. John Holden, resigned.
Robert T. Kingsley, Esq., for Nelson, New Zealand.
William Dorph, Esq., the A. J. S. Bank, for Sydney, Australia.

The price of a complete set of the translations published by the Palestine Pilgrims' Text Society, in 13 volumes, with general index, bound in cloth, is £10 10*s.* A catalogue describing the contents of each volume can be had on application to the Secretary, 38 Conduit Street.

The Museum at the office of the Fund, 38 Conduit Street (a few doors from Bond Street), is open to visitors every week-day from 10 o'clock till 5, except Saturdays, when it is closed at 2 p.m.

It may be well to mention that plans and photographs alluded to in the reports from Jerusalem and elsewhere cannot all be published, but all are preserved in the office of the Fund, where they may be seen by subscribers.

While desiring to give publicity to proposed identifications and other theories advanced by officers of the Fund and contributors to the pages of the *Quarterly Statement*, the Committee wish it to be distinctly understood that by

publishing them in the *Quarterly Statement* they neither sanction nor adopt them.

Tourists are cordially invited to visit the Loan Collection of "Antiques" in the Jerusalem Association Room of the Palestine Exploration Fund, opposite the Tower of David, Jerusalem. Hours: 8 to 12, and 2 to 6. Maps of Palestine and Palestine Exploration Fund publications are kept for sale.

Photographs of Dr. Schick's models (1) of the Temple of Solomon, (2) of the Herodian Temple, (3) of the Haram Area during the Christian occupation of Jerusalem, and (4) of the Haram Area as it is at present, have been received at the office of the Fund. Sets of these photographs, with an explanation by Dr. Schick, can be purchased by applying to the Secretary, 38 Conduit Street, W.

Branch Associations of the Bible Society, all Sunday Schools within the Sunday School Institute, the Sunday School Union, and the Wesleyan Sunday School Institute, will please observe that by a special Resolution of the Committee they will henceforth be treated as subscribers and be allowed to purchase the books and maps (by application only to the Secretary) at reduced price.

The Committee will be glad to receive donations of Books to the Library of the Fund, which already contains many works of great value relating to Palestine and other Bible Lands. A catalogue of Books in the Library will be found in the July *Quarterly Statement*, 1893.

The Committee acknowledge with thanks the following:—

"Sinai, Kadesh, and Mount Hor" (Henry Crossley); "Eusebius's Ecclesiastical History" (Crusè); "Eusebius's Life of the Blessed Emperor Constantine"; "Voyage and Travel of Sir John Maundevile"; "The Hebrews in Egypt and their Exodus" (Thayer); "A Vocabulary of the Chief Topographical and Geographical Words used in Scripture" (Stanley and Grove); Volume of Pamphlets; "Numismatic Illustrations of the Gospels" (Akerman); "Practical Tables for the Reduction of Mahometan Dates to the Christian Kalendar" (Gumpach); "The Proper Names in the Old and New Testaments rendered into Urdú and Hindé"; "Index to the Topography of Jerusalem"; "The Hebrews in Egypt and their Exodus"; "Das Todte Meer" (Fallmerayer); "The Assize of Jerusalem"; and other volumes and pamphlets. From Lady Grove.

"Cairo of To-Day." By E. A. Reynolds-Ball, B.A. From the Author.

"Days in Galilee." By the Rev. Alexander A. Boddy. From the Author.

"The Amherst Papyri." By Percy E. Newberry and W. E. Crum, M.A. From Lord Amherst of Hackney.

"The Royal Tombs of the First Dynasty." By Professor W. M. Flinders Petrie, D.C.L., &c. From the Author.

"Recueil d'Archéologie Orientale." Publié par Professor Ch. Clermont-Ganneau. Tome IV, Livraisons 3 and 4, February and March. *Sommaire :*—§ 4. Empédocle, Zénon, les Manichéens et les Cathares. § 5. Une nouvelle dédicace à Zeus Héliopolite. § 6. Jean le Hiérapolite, évêque d'Abila de Lysanias. § 7. Le "ralt" arabe et "l'éponge américaine." § 8. La ville lévitique de Mêphaat. Livraisons 6, 7, and 8, May and June. *Sommaire :*—§ 14. La "Tabella devotionis" punique. § 15. Le nom de Philoumenè punique. § 16. Manboug-Hiérapolis dans les inscriptions nabatéennes. § 17. Resapha et la Strata Diocletiana. § 18. Inscriptions grecques du Haurân. § 19. Les inscriptions du tombeau de Diogène à El-Hâs.

"A Journey from Aleppo to Jerusalem, at Easter, A.D. 1697." By Hen. Maundrell, M.A. "Travels in Mesopotamia." By J. S. Buckingham, 1827. From Miss Frances C. Wright.

"Il Trattato di Terra Santa e Dell 'Oriente." From the Author, P. Girolamo Golubovich, O.F.M., Missionario Apostolico di Terra Santa.

"Histoire et Religion des Nosairîs." From the Author, René Dussaud.

For list of authorised lecturers and their subjects, *see* January *Quarterly Statement*, p. 5.

Subscribers who do not receive the *Quarterly Statement* regularly are asked to send a note to the Acting Secretary. Great care is taken to forward each number to those who are entitled to receive it, but changes of address and other causes occasionally give rise to omissions.

It having come to the knowledge of the Committee that local secretaries and subscribers to the Fund have received from certain persons resident in Jerusalem books of dried flowers and articles in olive wood, accompanied by the intimation that pecuniary assistance would be gratefully received by the senders, this Committee desire to state that the said persons have no connection whatever with the Fund.

ANNUAL MEETING.

The Annual Meeting of the General Committee of the Palestine Exploration Fund was held at the offices of the Fund, 38, Conduit Street, W., on Tuesday, July 17th. Walter Morrison, Esq., M.P., occupied the chair.

There were present:—Major-General Sir Charles Wilson, Admiral Sir Erasmus Ommanney, the Rev. Canon Dalton, the Rev. Dr. Rogers, Professor Hull, Dr. Chaplin, Mr. Joseph Pollard, Mr. J. D. Crace, Mr. Henry A. Harper, Mr. Guy le Strange, the Rev. C. Lloyd Engstrom, and others.

The Chairman, in opening the proceedings, mentioned that the Chairman, Mr. Glaisher, was unable to be present on account of ill-health.

The Secretary read letters regretting absence from the following:—The Bishop of Salisbury, Colonel Watson, Sir William Muir, Sir F. J. Goldsmid, Professor George Adam Smith, Dr. W. Aldis Wright, Revs. Dr. Löwy, Dr. Kirkpatrick, Dr. Rigg, W. J. Stracey, Thomas Harrison, H. G. Tomkins, W. F. Birch, Mr. James Melrose, Mr. D. MacDonald, and Mr. F. D. Mocatta.

The Chairman then called on Major-General Sir Charles Wilson to read the following Report:—

Gentlemen,

In resigning the office to which they were elected at the last Annual Meeting, your Executive Committee have the honour to present the following Report:—

They have held twenty-three meetings for the transaction of business.

The excavations at Tell es-Sâfi having been stopped for the summer break on July 16th, 1899, were resumed at Tell Zakarîya on September 11th, and on October 9th were recommenced at Tell es-Sâfi and continued there until November, when the camp was removed to Tell ej-Judeideh, where it remained until December 16th, when the advent of the rains put a stop to the work for the winter. On March 19th of the present year the excavations were resumed at Tell ej-Judeideh, and carried on until the beginning of June, when the party proceeded to Tell Sandahannah and began work there.

Dr. Bliss has forwarded the following general account of the work :—

"Excavations have been conducted during the past year at four different sites, within a four-mile radius—Tell es-Sâfi, Tell Zakarîya, Tell ej-Judeideh, and Tell Sandahannah. They are all in the Shephelah or hilly country between the Philistine plain and the Judean mountains, Tell es-Sâfi being exactly on the border-line. They all occupy prominent strategic points, and all were fortified at some period or other. Before the permit was applied for, Tell es-Sâfi was chosen by the Committee as the principal field of operations, and they requested me to make an archæological survey of the neighbourhood in order to add such sites as might appear to be promising. My method of selection was simple, but it has been justified by the results. I chose Tell Zakarîya and Tell ej-Judeideh because, in addition to their commanding positions, they showed a considerable accumulation of *débris*, the surface of which was strewn with Jewish pottery, which gave hope of pre-Israelitish stuff in the lower levels. This has since been found in great quantities. Tell Sandahannah was not examined till after the permit was issued. As the area granted for excavation includes the town of Beit Jibrîn, to which this hill belongs, I sank two shafts, finding Seleucidan ware in the upper levels and pottery of the Hebrew monarchy in the lower. The method of establishing the age of a site by the examination of the surface pottery may best be illustrated by a concrete example. The other day I rode to Tell Kubeibeh, some four miles south of Beit Jibrîn. This mound rises abruptly from the valley very much like Tell el-Hesy (Lachish), only it is five or six times as large. The central part has been strongly fortified. I strolled over the crop-planted summit for less than an hour, picking up potsherds. First I noticed the absence of Roman types, then I observed fragments of early Greek ware, then I found the ribbed handles on which Hebrew inscriptions are sometimes stamped, and finally there appeared one such handle with the stamp itself, namely, the four winged scarabæus with the legend: 'To the King: Hebron.' I should now risk extensive excavations at Tell Kubeibeh, with no further preliminary examination, in full confidence of finding not only Hebrew remains not far from the surface, but pre-Israelite remains in the heart of the mound.

"My last annual report described the first two seasons' work at

Tell Zakarîya and the first season at Tell es-Sâfi. At the former place we had found a large fortification, strengthened by towers, and enclosing a space, occupied by houses which appeared to have been built at four different periods. At Tell es-Sâfi we had traced the wall around the ancient town, and had begun a large clearance to the rock at the north-east part of the mound. After the report was sent we found in this clearance, at a depth of some 20 feet, a rude enclosure containing three monoliths, exactly oriented, resting on footstones and embedded in a stratum characterised by pre-Israelite pottery. There seems to be no doubt that we have here an ancient heathen 'high place,' antedating Jewish times. During the summer the excavations were interrupted for about six weeks. Early in September we returned to Tell Zakarîya. The fortress occupied only the south-east part of the ancient town, and before suspending operations at the site it seemed best to make a large clearance more in the centre of the Tell, where the *débris* appeared to be less disturbed and showed two strata, one pre-Israelite, the other Jewish. Our hopes of finding cuneiform tablets in the lower stratum and Hebrew steles in the upper were not realized, but our labour was partially rewarded by the discovery of many whole specimens of jars, vases, bowls, &c., which enriched our knowledge of the pottery of these periods. Moving to Tell es-Sâfi in October we were again confronted by the limitations which the present condition of that most important and ancient site sets to excavation. The centre of the mound is occupied by a village; the south end, where the ancient Acropolis probably once stood, is covered by the ruins of the crusading fortress of Blanche Garde, over which extends a large modern cemetery, and even on the north-east plateau, where we began to dig, operations were limited by another cemetery. Choosing the few unencumbered spaces we practically exhausted the possibilities of discovery by a series of large clearances and carefully disposed shafts. The results were very disappointing. The buildings were of the hovel type; the pottery, though ancient, was mostly in fragments; one Babylonian cylinder and four scarabs represented the total of inscribed gems. In my last annual report I mentioned the ancient rubbish heap found covering the ruined city wall, in which we discovered a quantity of objects of various age and character, including masks, heads, and figures in pottery, fragments of stone statuettes,

numerous Egyptian amulets, Babylonian seals, &c. These indicated that somewhere in the Tell important buildings were to be found. Having failed to discover these in the excavations conducted in the available portions of the Tell, we were forced to conclude that they lie buried under the modern village, or under the various cemeteries, where digging was absolutely prohibited. What, then, were the results of our excavations at Tell es-Sâfi, and what light has been thrown on the identification of this site with Gath? First, we have proved that it had an uninterrupted occupation from the earliest pre-Israelite to late Greek times; secondly, that it contained a heathen 'high place'; and thirdly, that it was probably fortified during the Jewish period. As I have stated before, our work has furnished no argument against the Gath theory. We have proved the existence of a city quite as ancient as Gath, on a site where Gath may reasonably be looked for, fortified at about the time when Gath was made a city of defence. The aim of the Fund is the systematic exploration of the Holy Land. It is no temporary organisation staking its all upon a single expedition. It was inevitable that Tell es-Sâfi should be excavated, and speaking as agent of the Fund, notwithstanding my disappointment at the meagre results of the work, I cannot feel that the time spent there was lost. What can be shown by excavation has been shown, and Tell es-Sâfi may now be struck off from the sites to be investigated.

"Tell ej-Judeideh is the southernmost hill of a chain which runs from near Beit Jibrîn for about six miles N.N.E. through the heart of the Shephelah, terminating abruptly at the north with Tell Zakarîya. Two seasons have been spent on this site, the first lasting from November 27th to December 16th, 1899, when we were stopped by the winter rains, and the second from March 19th to June 1st, 1900, when preparations were begun for moving to Tell Sandahannah. During the first season we traced the city walls, which enclose an area 800 feet long with an average breadth of 300 feet. The wall is 10 feet thick, has four gates flanked by towers, and is further strengthened by buttresses, which, like the towers, project inward from the inside face of the wall. This line of fortification rests on *débris*, and was found to represent the latest period of construction, which was proved by various indications to date from Roman times. Later, a villa of the same date was traced in the centre of the Tell. The Jewish

and pre-Israelite occupations covered an area over twice as long, though the greatest accumulation falls within the northern half of the space later enclosed by the wall. During the spring season we made six large clearances to the rock within this space, examining some 125,000 cubic feet of stones and earth, usually sifting the latter. As to construction, the results were not important. The buildings unearthed were rude, but the *débris* was very rich in pottery, and we recovered many types valuable in helping out a complete history of Palestine ceramics. The most interesting feature of the pottery here was the prevalence of jar-handles with Royal stamps. Out of the 61 specimens found by us up to June 1st, 37 came from Tell ej-Judeideh, and 24 from all the other sites excavated. The discovery of these stamps well illustrates the quietly progressive nature of the work of a Society which can afford to wait. The first specimens were discovered by Sir Charles Warren over 30 years ago, and showed a two-winged symbol with the Hebrew words, 'To the King' above, and the name of a town below. Ziph and Shocoh were the two towns identified, while the third, the first part of which was missing but which ended in ——*shat*, remained a mystery. Well, we have found not only the names of Ziph and Shocoh, but also that of Hebron, and have solved the mystery of the doubtful word, only to substitute for it another mystery. Several perfectly clear stamps show in the place for the town-name the four Hebrew letters M. M. S. T., which we may vocalise provisionally and quite arbitrarily Memshath. Where and what was this Memshath? As no such term is mentioned in the Bible, we must assume either that it falls under the category of unenumerated villages referred to in general in the lists of Joshua, or that it was a purely Jewish town founded after the lists were made out. A study of the 61 specimens shows that 30 bear the symbol referred to above, which appears to me to be a bird, but which others take for a winged disc, while 31 have in its place a four-winged beetle, treated sometimes conventionally and sometimes naturally, with body fully articulated. On 25 the place-name is illegible, while of the 36 legible specimens 15 read Shocoh, eight Hebron, seven Memshath, and six Ziph. The name Shocoh has been found at Jerusalem and at four other sites; Ziph and Memshath at Jerusalem and three other sites; Hebron has been found at three sites in the Shephelah. The wide geographical

distribution of these four names, and of these four names alone, seems to me to be best explained by the theory held by Professor Sayce, that they were sites of royal potteries which, like the potteries of the present day, distributed their wares far and wide. In the July *Quarterly* I gave a *résumé* of other theories advanced by Messrs. Ganneau, Macalister, and others.

"The work at Tell Sandahannah was begun June 5th, and is going on while I write. The name is comparatively modern, being an Arabic corruption of Sancta Anna, to whom the church in the neighbourhood was dedicated. The Tell is about 600 feet long by about 450 feet wide, and has no great depth of accumulation, rock being found in two shafts along the central axis at 12 feet and 17 feet respectively. We are employed in tracing out the fortifications, streets, and houses of the Greek town, which, though ruined down nearly to the level of the door-sills, and barely covered by the surface soil, shows a beautifully preserved ground-plan. Stamped Rhodian jar-handles are numerous, over 200 having been recovered already, though the majority are from the fields surrounding the Tell, from which they were doubtless washed down. In tracing the inside line of the city wall we have been fortunate in striking a flooring, from 2 feet to 3 feet below the surface, buried in *débris*, which contains many fragments of soft limestone, covered with Greek writing, in some cases very minute. Some of these have the regular tablet form, with writing on the edges as well as on both sides, while others are merely flakes of stone, smooth on one side and rough on the other. The largest fragment found thus far is 9 inches long. The specimen shows writing in Hebrew. Several are clearly school-boys' writing books, as we have the same line repeated from top to bottom: in one case the contrast between the master's elegant script and the boy's unsuccessful attempt to imitate this is noticeable. Others, however, are evidently of a more serious character, but the attempt at deciphering must be left till the delicate process of cleaning has been accomplished. The material is of exceeding softness, and a camel-hair's brush is the only implement that leaves no marks. The mine is still being worked. This report would be far from complete without a reference to the important and minute investigations conducted by Mr. Macalister in the artificial caves in which this region abounds, and which have thus far been studied only very superficially. Most of his results are still unpublished.

"The date of this report finds the party in excellent health and spirits. The weather has been wonderfully cool. Our workmen are chiefly men who have worked with us for nearly two years, and who have followed us from Zakarîya to our various sites. Our commissioner, Showkat Effendi, continues his valuable services in connection with all negotiations with landowners. Our finds form the nucleus of a small museum in the Government School in Jerusalem, and a selection has been made from them to go to Constantinople."

The value of the reports has been greatly enhanced by the excellent plans and drawings by Mr. Macalister, who also has forwarded valuable notes on the rock-cuttings of Tell es-Sâfi and Tell Zakarîya, and an elaborate report on the rock tombs in Wâdy er-Rababi (Valley of Hinnom).

Mr. F. B. Welch, of the British School of Archæology at Athens, who recently visited Palestine, was requested by the Committee to visit Dr. Bliss's camp and the small museum in the Government School at Jerusalem, to examine and report on the various types of pottery found during the excavations carried out by the Fund at "Tell el-Hesy," "Tell es-Sâfi," "Tell Zakarîya," "Tell ej-Judeideh," and "Tell Sandahannah." His report has just come in, and will be of great assistance to those engaged in the study of this branch of archæology.

From Mr. W. E. Jennings-Bramley, who has recently travelled in the Desert of the Wilderness, we have received several interesting reports, many photographs, and route surveys.

To Dr. Conrad Schick the Fund has been indebted for reports on various interesting discoveries in and around Jerusalem, and for articles on "Jacob's Well," "The Rose of Jericho," "Tower of Edar," and the ancient Convent of Mar Metri.

Major-General Sir Charles Wilson has contributed a report on inscriptions from Kerak; the Rev. J. E. Hanauer notes on inscriptions in Baron Ustinow's collection, the discovery of rock-hewn vats near Bîr Eyûb, and an account of modern colonisation in Palestine; Mr. Charles Hornstein has forwarded reports of a Latin inscription at Baalbec and a newly-found tomb on Mount

Scopus; and Professor Porter has sent an account of antiquities in the American Museum at Beirût, including a cuneiform tablet, a translation of which, with notes, has been communicated by Mr. Theophilus G. Pinches.

The *Quarterly Statements* of the year have also contained valuable notes and articles by Professor Sayce, Professor Clermont-Ganneau, Lieut.-General Sir Charles Warren, Colonel Conder, Colonel Watson, Mr. Philip Baldensperger, Mr. Gray Hill, and others.

The Meteorological Observations taken for the Fund at Jerusalem and Tiberias have, with very great labour, been prepared for publication by our Chairman, Mr. James Glaisher.

The concluding volume of the set of Memoirs called "Survey of Palestine," viz., "Archæological Researches," by Professor Clermont-Ganneau, was issued in December last. The whole set, as advertised, consists of:—"Survey of Eastern Palestine," in one volume; "The Fauna and Flora of Sinai, Petra, and the Wâdy 'Arabah," in one volume; "The Archæological Researches," in two volumes.

A reprint of the Collotype print of the Raised Map has been prepared; this makes the fifth edition.

A new edition of the plan of Jerusalem and neighbourhood, showing all the latest discoveries in red, with a reference sheet to the reports in the *Quarterly Statements* and other publications in which the discoveries are recorded, has been prepared, and will soon be ready to send out.

Since the last Annual Meeting 75 names have been added to the list of subscribers, and 153 have been lost through death and other causes.

Our warmest thanks are due to the honorary local secretaries for their generous help in collecting and forwarding subscriptions to the office of the Fund.

The Committee have to deplore the loss by death during the last 12 months of the following members of the General Com-

mittee, viz.:—His Grace the Duke of Westminster, the Earl of Harrowby, His Grace the Duke of Argyll, Sir George Grove.

The following is the Treasurer's Statement which was published with the Balance Sheet for 1899 in the April number of the *Quarterly Statement*:—

TREASURER'S STATEMENT.

The income of the Fund for 1899 amounted to £2,701 2*s.* 11*d.*, made up as follows:—

From Donations and Subscriptions, £2,081 18*s.* 0*d.*; from sales of publications, £609 19*s.* 11*d.*; from Lectures, £9 5*s.* 0*d.*; being an increase of £100 17*s.* 1*d.* over that of 1898.

At the end of 1898 there was a balance in the bank of £674 9*s.* 1*d.*, making the total amount available for the year, £3,375 12*s.* 0*d.*

The expenditure during the same period was:—

On exploration, £1,495 11*s.* 1*d.* Excavation work was carried on during the greater part of the year.

On printing, binding, including the *Quarterly Statement*, £513 10*s.* 11*d.*

On maps, lithographs, illustrations, photographs, &c., £200 3*s.* 3½*d.* Against these two sums the Fund received from the sale of all publications, £609 19*s.* 11*d.*

On advertising, insurance, stationery, &c., £111 9*s.* 6*d.*

On postage of books, maps, &c., including the *Quarterly Statement*, £151 11*s.* 11*d.*

The management, including rent of office, £661 19*s.* 11½*d.*

On December 31st, 1899, the balance in the Bank was £241 5*s.* 4*d.*

Assets.	£	*s.*	*d.*
Balance in Bank, December 31st, 1899.. ..	241	5	4
Stock of Publications in hand, Surveying Instruments, Show Cases, Furniture, &c.			
In addition there is the valuable library and the unique collection of antiques, models, &c.			

Liabilities.	£	*s.*	*d.*
Printers' Bills and Current Expenses	243	13	4

Walter Morrison, *Treasurer.*

The amount received from America through the Rev. Professor Theodore F. Wright, Honorary General Secretary, was from—

	£	s.	d.
Subscriptions	230	10	5
Sales of publications	45	19	7
Total	276	10	0

Having read the Report, Sir Charles Wilson said, in conclusion :—The Chairman has asked me to move the adoption of the Report, and I do this with great pleasure. I think the Report is satisfactory, and some of the reports and papers that have been received are very interesting. I hope that the find of tablets with inscriptions at Tel Sandahannah will prove to be of great value. I have read Mr. Welch's report, and may mention that it is of much interest, and exactly what was wanted. Mr. Welch has studied at the British Archæological School at Athens, and been engaged on excavations in Cyprus and other places, and he has now compared the pottery obtained during our excavations in Palestine with that which has been found in Greece, Rhodes, Cyprus, and other places. We now know within narrow limits the age to which the pottery of Palestine should be ascribed, and can distinguish the types derived from the Mykenean civilisation or from Egypt, and those which have developed locally in Palestine. I have also read Mr. Jennings-Bramley's reports. They, too, are valuable, but circumstances render it desirable to postpone their publication for the present. Mr. Bramley is one of the few men who have really got to the bottom of Bedawi life. He has lived amongst the Bedawin, and his reports give a valuable picture of Bedawi life in the "Wilderness of the Wanderings." He has sent us a number of photographs of the desert, and of places not previously visited by Europeans, and his geographical work certainly throws new light on several districts which are interesting from their position with regard to the route taken by the Israelites when they left Sinai. Dr. Bliss's work has been close and very good, but unfortunately it has not led to any very striking results. He has, however, found articles of pottery and stamped jar-handles, which are of great value, and in some cases the negative results obtained are almost as valuable as if they had been positive results. I beg to move the adoption of the Report.

Admiral Sir Erasmus Ommanney.—I shall be happy to second the adoption of the Report, which appears to be very satisfactory.

Professor Hull.—I should like to make one or two remarks upon the very interesting Report which Sir Charles Wilson has just read. It stands out from the others that have been brought before us in one fact, viz., that it records the decease of Sir George Grove. If I am not mistaken, Sir George Grove was the founder of this Society, and therefore his is a name which we shall miss from amongst the members in the future. He has, by founding the Society, greatly contributed to the archæological discoveries which have been made in Palestine and the neighbouring districts. In looking through the Report hastily, for I have not had time to do more than that, I could not help noting that Mr. Gray Hill, the gentleman who sends a report from the shores of the Dead Sea, refers to one very curious physical phenomenon there, namely, the rise of the surface of the waters of the Dead Sea. He states that a few years ago there existed an island at the north end of the lake which is now entirely submerged, and the neck of land between the north promontory jutting out from the east shore is now disconnected from the land, and that his Arab guides were unable to take his party along the cliffs of Jebel Usdum on the western shore, because the waters of the Dead Sea now wash the base of those cliffs. Well, when Mr. Armstrong and I were in that country in 1883-4, we were able to ride very comfortably along the strand between the waters and the base of those cliffs, but I do not think there were more than five or six feet of level on an average between the base of the cliffs and the surface of the waters. A rise of five or six feet in the general surface of the Dead Sea is an interesting fact. The author of the report referred to endeavours to account for it in various ways, but I cannot agree with his views. I think whatever changes of level have taken place in the surface, or may take place in the surface, of the Dead Sea will be due either to the excess or deficiency in the rainfall in the mountains of Lebanon. There may have been an excess of rain, and to it, I think, we must attribute the extraordinary rise. I have much pleasure in supporting the resolution.

The Chairman.—It cannot be by volcanic action, because that would be only local; so I think it must be due to some change in the rainfall and evaporation.

Professor Hull.—Yes, depending on the relative amount of evaporation and rainfall.

The Chairman.—It would be an interesting thing to find out.

Professor Hull.—The rainfall to which I allude would not be that of the Jerusalem district, but of the Lebanon.

The Chairman.—We have reports from Tiberias, which is not so far from Lebanon. Referring to Professor Hull's remark about Sir George Grove, you will see we have officially noticed his decease in the *Quarterly Statement*. Some of you may not know how this Society was started. Mr. Grove bought Pierrotti's book and wrote to the "Times" saying he was disappointed with it, and invited anybody to go down to the Crystal Palace to have pointed out to him copies of the publication. I went down and found there Mr. James Fergusson and Mr. Grove and Roberts and Hodges. Sir Charles Wilson had already been surveying round about Jerusalem, and then Mr. Grove said, "Why should we not have something systematic?" And that was really the first suggestion that brought about the origin of the Society. Mr. Grove was the motive force in the early days, but afterwards he gave his attention to other matters.

Professor Hull.—Everything has a beginning, like the British Association, which arose from about half a dozen scientific men getting together. I am sure we are all glad to see you, as one of the founders, still a member of the Fund.

The Chairman then put the resolution to the meeting, and it was carried unanimously.

The Chairman.—The next business is, we suggest that you should add the name of Dr. Bliss to the General Committee. We are sorry to say that Dr. Bliss has been obliged to send in his resignation on account of ill-health. Those who have met him know that he is a delicate man, but he has done much good service to the Fund. There is always a certain amount of danger from fever from the malaria which frequently arises when you turn over ancient sites, and we all know there are many places where, if you turn up even virgin soil, you are almost certain to get the fever. I am sorry we are going to lose the services of Dr. Bliss. He will finish the work on which he is engaged up to the end of the present season, which will be about October. I hope you will agree to add Dr. Bliss's name to the General

Committee of the Fund. We have done the same thing in the case of all the previous explorers, and I think we ought to do it in the case of Dr. Bliss.

Mr. J. D. Crace.—I shall be very pleased to second the addition of Dr. Bliss's name to the General Committee. His contributions have continued up to the present time, and have been full of interest, although the results have not been those which appeal to the public mind.

The resolution was carried unanimously.

The Chairman.—Now the election of the Executive Committee. Our suggestion is that the same Committee should be reappointed, with the exception of Professor George Adam Smith, who has resigned, and the addition of Mr. Harry Rylands. Mr. Harry Rylands, as I daresay you all know, is the Secretary of the Society of Biblical Archæology, a society which was established for the purpose of discussing questions relating to Africa and Asia, and one of the features of its constitution is that they are not to discuss the Bible. I went as a vice-president to that society to form a link between the Palestine Exploration Fund and the Society of Biblical Archæology, and it would make a still stronger link if we had Mr. Harry Rylands on our Executive Committee.

Mr. Pollard.—I shall have much pleasure in proposing that.

Professor Hull.—I shall be glad to second it.

The resolution was unanimously carried.

The Chairman.—Now I have very great pleasure in moving a vote of thanks to Dr. Bliss and Mr. Macalister and Dr. Schick for their services to the Society. Dr. Schick has spent very many years in that country. He is always on the look-out for all sorts of odds and ends of archæological discovery, and has obtained for us a large amount of valuable information. You have heard that a new edition of the plan of Jerusalem is about to be issued, showing the various discoveries which have been made since it was first prepared by Sir Charles Wilson, and I think you will find a considerable number of those discoveries are to be attributed to Dr. Schick. We must also especially thank the Editor of the *Quarterly Statement*, and our excellent Acting Secretary, Mr. George Armstrong. Our *Quarterly Statement* is

a great addition to the history of the world on this class of subjects.

Mr. J. D. Crace.—I beg to second that.

The motion was unanimously carried.

Professor Hull.—I think, gentlemen, we have now only to accord our thanks to Mr. Morrison for presiding this afternoon, and at the same time to express our regret at the absence of our Chairman, Mr. Glaisher, on account of ill-health. It is the first time in my recollection that he has been absent.

Sir Erasmus Ommanney.—I shall be glad to second that.

The Chairman.—I am much obliged for the compliment. I have been connected with the Fund from the beginning, and, with a little exception, I have always been a member of the Committee. As you know, I am the Treasurer, and I am sorry to say we are suffering, like everybody else, from the war. Up to yesterday we had only received £1,310 for subscriptions, sale of publications, and everything else; for the corresponding period last year it was £1,661. Mr. Armstrong has taken out the figures for the last seven years, and they show that this is the worst year we have had. When we come to the month of October we shall not only have exhausted all our resources, but we shall be considerably in debt. But we must go on exploring, so as to find out all there is to be found.

The proceedings then terminated.

REPORT ON THE EXCAVATIONS AT TELL SANDAHANNAH.

By F. J. Bliss, Ph.D.

Tell Sandahannah is situated one mile directly south of Beit Jibrin. Although the accumulation of *débris* is not great, ranging from 12 feet to 20 feet, yet the Tell is a prominent feature in the landscape as it covers a small natural plateau, from which several ridges radiate in various directions. Its summit is 1,098 feet above sea level. It is roughly circular, with a diameter of about 500 feet. In the spring, two shafts were sunk to the rock, and an examination of the pottery showed two distinct strata—the lower Jewish, the higher Seleucidan. Systematic excavation was begun June 5th, and was continued till August 28th, with the interruption of only one day, when the time was devoted to making casts of the objects unearthed. The average number of men per day for the 72 days of labour was 37. Never since the permit was available have we been able during so short a period, and with so few men, to attain such full results. Briefly, these are as follows:—(1) We have excavated the surface town almost completely, with its inner and outer walls, its gate, streets, lanes, open places, houses, reservoirs, &c., and have proved these constructions to date from Seleucidan times. (2) We have confirmed the existence of a lower town, dating from the Jewish period, by clearing to the rock, an area 50 feet by 30 feet. (3) A dozen tombs have been opened in the neighbouring cemetery, two of which had escaped rifling at any period. (4) A contoured survey has been made of the district, and the plan shows in detail the extraordinary system of souterrains, columbaria, cisterns, &c.[1] (5) Distinct advance has been made in the knowledge of the pottery of Seleucidan times, through the discovery of numerous whole specimens of lamps, jars, plates, vases, &c. (6) The other finds include a series of tablets of soft limestone, inscribed

[1] The publication of this plan has had to be deferred (*see* p. 338).

in Greek and Hebrew, a group of small figures in lead, representing bound captives, a large bronze lamp, a bronze cupid, an inscribed lead weight, &c. It should be noticed that in addition to the labour of excavation, the work of 72 days included the restoring of the surface of the Tell to the condition in which we first found it.

Before entering into the detailed description of the Seleucidan town it will be well to indicate the nature and method of the excavation.[1] The work was rendered easy by the fact that, as a rule, the ruined tops of the walls were covered with less than a foot of *débris*, while in many cases this was only a couple of inches thick. On the first day of the work I placed 10 diggers with their basket boys, in a line, east and west, just within the line of the city wall, with a distance of 20 feet between gang and gang, and directed them to dig trenches about 3 feet deep, directed towards the north. In some cases walls were found running in a line with the trenches; in others walls were struck crossing the trench lines. At the end of two or three days we had sufficient clues to make it more economical to abandon the method of parallel trenches, and a systematic tracing of streets and chambers was begun. The small size of many of the rooms rendered the disposition of the earth a difficult problem, and demanded that as little should be removed as possible. This was usually piled in the centre of the chambers, the trenches being dug around the walls. In most cases only two, or at the most three, sides of a room were excavated, the length of the remaining side or sides being determined by the excavation of the contiguous chambers. Only the outside walls of a few chambers were seen. This method, however, allowed us to discover whether any remains of doors existed. The majority of rooms were ruined down below the level of the door-sill, all signs of which had disappeared. On the plan are marked only such doors as were actually found. It may be noticed that in a given group of contiguous rooms perhaps only two are connected by a door. This is due either to the fact that the wall containing the door is less ruined, or that the missing door-sills were at higher

[1] *See* plan.

levels. An example of two adjacent rooms at two different levels and connected by a staircase, may be seen at *h*. In most cases where rooms showed any peculiar feature, such as cisterns, a plaster flooring, a vault, a solid pavement, &c., these were thoroughly excavated. It will be noticed that the lines of the chambers break off near the southern and western walls; this is due to the great ruin at these points and suggests destruction by war. This destruction appears to have been greatest at the south-west corner of the town. As in many cases clues to walls suddenly gave out, and in others a deep trench showed only one course of stones resting on *débris*, the entire excavation of this small area was abandoned for more important researches. To have completed it would have added much to the expense and perhaps little to our knowledge of the town, the greater part of which had been traced with so much economy of labour.

The excavation of the great quadrangular building, having one side open, in the east part of the town, was, however, a more costly affair. When the west wall of Street E had been found, several long trenches were pushed eastwards from it to determine the position of houses supposed to be on the other side of the street. No such houses were found, but in the line of all the trenches were large fallen stones of quite a different character from those found before. As these indicated the presence of some important building, we determined to excavate as much of the area as might be necessary by means of a large clearance, though this would involve employing the full force of men at this point. Not till the second day did any traces of walls appear, and meanwhile the work consisted mainly in breaking up and carrying away in fragments large stones, choking the *débris*, some of which were over 3 feet square. By this method the double western wing of the building was determined. From a point near the south-west corner a tunnel was driven eastwards, along the foundations of the south wall, under the fallen stones. As the ground slopes towards the east, we stopped the tunnel at a distance of 70 feet, and opening up from above, were enabled to trace the rest of the south wall to the south-east angle in an open

trench, thus proving the suspected identity of the east wall with the city wall itself. The excavation of the east wing was conducted rapidly and inexpensively by comparatively shallow trenches. The only point left undetermined was whether the south wing was further subdivided into chambers, but to settle this question would have involved another expensive clearance through the fallen stones.

We may now go into the details of the town excavated. Though four-sided, it is by no means square. Its greatest length east and west, measured at a point through the gate, is about 520 feet, and its greatest breadth north and south, measured along the west side, is about 500 feet. It thus covers hardly 6 acres of ground. When we began to dig, long portions of both lines were observed at several places, flush with the surface. It is surrounded by two walls. The inner wall is found either at the edge of the Tell or a few feet down the slope. The wall has been drawn at a uniform thickness of 5 feet, as this is the average thickness at points on the north side where it is preserved above the level of door-sills of abutting houses, and along the east side where the ground level is determined by the gate. At two points on the north side we ascertained that it is thickened on the inside face by offsets below the ascertained ground level, bringing the thickness of the foundations to about 8 feet in one case and to about 10 feet in the other. An offset was also found at the east side. At the south side the thickness of the portion of wall remaining is 11 feet, and on the east side it ranges between 8 and 9 feet. A glance at the plan will show that owing to the ruin of contiguous houses, we had no criteria to determine the original ground level of the wall on three sides. As the masonry is here rough, we may assume that only the broad foundations remain. These consist of large and small roughly-coursed rubble, laid in mud, and proved at several places to rest on *débris* at a depth of only 4 feet below the present surface. Some of the towers are built of thin, brick-like blocks of soft limestone, dressed with a broad chisel, often used diagonally[1]; this is the characteristic building

[1] This dressing must not be confused with the fine diagonal cross-chiselling of the Crusaders.

material of the town. It is found in the part of the wall between the north-west tower and the offset which marks the position of an internal tower. The stones average about 21 inches in length, 6 inches in height, and 11 inches in thickness, the courses being laid in English bond, that is, a course of stretchers alternating with a course of headers. The internal tower is of irregular shape, and probably contained small chambers at different levels, though only one remains; the part of the tower blackened in was found solid, and represents mere foundation work. Eastwards from this point to the north-east tower, and southwards from this tower to the gate, the masonry consists of large stones, set in mud, with wide joints. These stones range in length from 2 feet 10 inches to 3 feet 9 inches, in height from 1 foot 6 inches to 1 foot 9 inches, in thickness from 6 inches to 9 inches, and are laid in English bond. They are roughly flaked, with no distinct dressing, though in some cases there has been a rude attempt to form a boss and margin. From the gate to the south-east tower the wall has been removed in recent times for building the house of the chief Sheikh in Beit Jibrîn, but the line may be inferred from the direction of the great trench which is still open. According to the Fellahîn who saw it destroyed, it consisted of large stones similar to those just described. Another break in the wall occurs near the south-west tower, where possibly a gate may once have existed, as the slope of the hill is here favourable to an approach. While searching for a clue at this point, we found the hoard of tablets, and the earth removed during the excavation was heaped up along the supposed line of wall. In attempting to explore the whole town and to excavate its treasures in the short space of three months, some sacrifice of detail was necessary, so the search for the wall at this point was sacrificed to the tablets.

Another break occurs near the north-west tower. This appears to have been a breach made in war and left open during the last years of the town, as remains of house-wallings (too detached to appear on the plan) run down the slope, crossing the supposed line. The wall is again entirely ruined at the point where it must have made a junction with the

north-east tower. This tower is also much ruined, but its face and south-east side remain. It is built of limestone "bricks."

As mentioned above, the inner wall runs either along the edge of the Tell or in a line slightly down the slope. The outer wall (hatched on plan) is, of course, still further down the slope. It was traced along the entire south side of the city, pieces were found at the west, and a section, 140 feet long, was excavated at the east. The shortness of our time prevented the search for the entire line, but enough was excavated to prove that it encircles the hill and to show its relation to the inner line. In places the space between the two walls is barely 15 feet, while in two instances the towers of the two systems touch each other. That the two walls are of the same period is proved by the fact that the face of one of the towers of the inner line is extended beyond the place for the true corner to bond into the outer line. It seems to me to be probable that the outer wall never rose to any great height above the surface, but merely served the purpose of a revetment to strengthen the upper wall which rested on *débris*. The outer wall also rests on *débris*. Its masonry shows the large and small rubble of the upper line, as well as the limestone "bricks," but the large well-squared stones are wanting, and in general the construction is inferior. It is about 6 feet thick.

The approach to the city is from the east, where a gate opens directly into the large open quadrangular building. In finding this gate I had the same luck which attended my discovery of the gate near Siloam. In both cases the walls in the immediate vicinity had been robbed of stones in modern times, and in the present case the gate appears to have escaped by a miracle, as the destruction of the wall extends to within 10 feet of it, and as it is covered by barely a foot of soil. As the gate is ruined down to the level of the outer sill, and as, moreover, it had been blocked up it might have escaped us had not the position appeared to have been the most favourable for an entrance to the city. My suspicions were aroused by a peculiar feature in the supposed ruined top of the wall, which

showed an inner course an inch or two higher than the facing course. A careful brushing of the latter revealed marks of foot-wear, and removing the inner course I found this to be merely a blocking up of the gate.

On the outside the gate is protected by a small tower, projecting 12 feet 8 inches from the line of wall, and having a face 17 feet in length. Its face and west side are ruined down below the level of the door-sill, so there is nothing in the construction to determine whether the outside entrance to the tower was to the east, that is opposite the inner gate, or to the north, at right angles to it, in the manner of the Jaffa Gate at Jerusalem: but as the north side would barely give space for a gate of equal width, one may assume the entrance to have been in the east wall. This tower rises from a platform, 35 feet wide, protected by a revetment, consisting of single slabs of stones sloped against the *débris* of which the platform is composed, and resting on *débris* at a level some 40 inches below the level of the gate-sill. The face of the revetment is much ruined, and though search was made for steps leading to it up the slope, no such steps were found.

The gate has an overall opening of 9 feet. The sockets for the door-posts measure 10 inches by 8 inches, and were filled with lead. As mentioned above, a row of stones had been built against the outer sill from within, one of which covered the north socket, suggesting either that the gate had been purposely closed, or that at some period its level had been raised. Though the tower before the gate and the revetted platform do not bond into the main wall, I see no reason to assume that they do not belong to the period of the gate, as lack of bond is to be observed in the town in parts of the same construction. Within the gate is a stone pavement.

The method of excavating the large quadrangular building, with one open side, has been touched upon, and we may now describe its nature. Its east wall coincides with the city wall. At the level of the pavements discovered within rooms of the western chambers the walls are about 5 feet thick, but the foundations are more massive, attaining in places a thickness

of 7½ feet.. At one point where there is a slight deviation in the foundations to avoid the opening to a rock-hewn chamber, these are seen to rest on the rock. The coincidence of the east wall of the building with the city wall was not proved till near the close of the season, and it was not ascertained whether this wall rests on the rock or not. The east wing of the chamber contains six chambers, having a breadth of about 17 feet, and ranging in length from about 8 feet to about 35 feet. As mentioned above, the number of rooms into which the south wing was divided was not ascertained. Against the one cross-wall discovered were found indications of a built water-tank. The west wing is double, having two lines of chambers; the western line contains six chambers, with a breadth of about 13 feet, ranging in length from about 13½ feet to about 18½ feet. Owing to the fact that the walls were ruined to different levels, and that the foundations vary in thickness, measurements to the inch could not be taken. The eastern line has three chambers, the largest of which measures 55 feet by 17 feet. Portions of stone pavements are preserved in several of the rooms, but as the adjacent walls are ruined down to their level, we found no signs of doors connecting the chambers with each other or with the open court. The masonry *in situ* is similar in size and character to that part of the city wall where we find large stones. Among the *débris* covering the foundations were found still larger stones, ranging from 3 feet by 3 feet 4 inches to 3 feet 5 inches by 3 feet 6 inches. A small building with slighter walls was found to extend within the court at its north opening. Whether other such buildings exist within the court was not ascertained.

We are unable to speak positively as to the purpose and use of this construction. Its size, the thickness of its walls as compared to the rest of the town, and the regular disposition of its chambers prove it to have been some sort of a public building. Clearly it is not a temple. The facts that its east wall is coincident with the city wall, and that the only discovered entrance to the town is through it, suggest that it formed part of the fortifications, possibly the barracks.

Turning now to the main portion of the town, we notice

TELL SANDAHANNAH

Plan of the Uppermost City

Photo Lithographed & Printed by James Akerman, 6, Queen Square, W.C

that this is in general built of soft limestone "bricks" of the same character and shape as those found at points in the city wall, but smaller in size. This masonry is set with wide joints and laid in mud. Occasionally we find masonry of larger, harder stones, chisel-picked and laid in mud, 18 inches in height, sometimes constituting the sole masonry of a given chamber, sometimes used indifferently in the same wall with the "bricks." The walls have an almost uniform thickness of 30 inches.

The town is roughly divided into blocks by streets (*see* plan). The most important is Street A, running east and west for a distance of 350 feet from the "barracks" to the houses along the west wall. It is paved in places with rude blocks of soft limestone, and has a maximum breadth of 20 feet. Several of the other streets are paved. Opening out of Street A to the north we have, first, Street B, 7 feet to 10 feet wide, which runs straight for some 65 feet, and then turns east for about the same distance, terminating in a *cul-de-sac;* secondly, the short Street Γ, of irregular width, also terminating in a *cul-de-sac;* and, thirdly, Street Δ, from 7 feet to 18 feet wide, and over 160 feet long, which does not extend to the city wall. The pavement is preserved only in some places; two of these occur within a short distance, and as they differ in level by some 3 feet, we assume that the street must have been stepped down. Opening from Street A to the south we find the narrow Street E, which bends around the "barracks," and Streets Z and H, which, with Streets A and Θ, enclose what appears to be the most important block of the town. This block, which, roughly speaking, measures about 140 feet square, shows signs of rebuilding, especially at the south side, and of adaptation to public uses. Immediately under the ground-level of the "Court" and "Paved Court" are found foundations of houses, which appear to have been destroyed when the block was unified, so to speak. I would suggest that these may have been pulled down when the block was adapted as the house of the governor. In its north-west corner we find the court *a*, surrounded by eight rooms, which may have constituted the private apartments. The large rectangular "Court" (50 feet

by 62 feet) is partly surrounded by a passage, which appears to have been divided into rooms in later times by the walls hatched on the plan. At the north this passage is separated from the "Paved Court" by still another passage. These courts may have been places of public assembly. The rooms at the south-western portion of the block may have been devoted to government offices.

Examination of the other blocks will show how these may be subdivided into houses, lighted not only from the street but from open courts within. For example, *b* appears to be an open court, surrounded on the west, north, and east by chambers, and touching on the south the house whose central court is *c*. Suggesting *d*, *e*, and *f* as similar open courts, we may leave the reader to subdivide the rest of the town for himself.

It will be noticed that very few of the rooms are perfectly rectangular, while many are of very awkward shape. This fact taken in connection with the nature of the excavation, which did not permit us to clear along the four inside walls of the chambers and thus to secure the dimensions to an inch, makes any attempt to reduce the standard of length futile. Attention should be called to the number of chambers barely 3 feet wide, though enclosed by walls over 2 feet thick. These appear to be closets. Chamber *g* is a raised platform, with steps, like a "mustaba" in an ordinary Arab house; *j* is also a mustaba. Chamber *h* is solidly paved with stone slabs from which a stairway ascends to the chamber to the west. A similar stairway may be seen in the court *l*. The small circles seen in many of the chambers represent pit ovens (made of mud) such as have been often described before. Portions of small drains with stone covers are found at various points, such as between chambers *p* and *q*, but the extent of the excavation prevented our examining the drainage system in detail. . . . . .

Several architectural fragments, ornamental and constructional, were found in different parts of the city. A few of these, such as a triglyph built into the jamb of a door opening on to Street H, were re-used, but not one was found in its original position, and there is no evidence in the existing

remains of buildings to indicate the original position of any one of these stones. There is, for instance, no trace of a colonnade in the whole city, and such columns as existed must have stood upon dwarf walls, now ruined below the level of the bases. . . . . .

Our main work was confined to an examination of the latest town, but the eastern half of the open space marked "Court" was cleared to the rock. As mentioned above, immediately under the surface we found a series of chambers which were proved to be independent of the "court" by the following facts:—(1) The wall of the court, which rests in *débris* at a depth of from 3 to 4 feet below the surface, crosses some of the ruined walls of these chambers; (2) other walls are broken off to make room for the court-wall; (3) the court-wall is in places built directly upon the chamber walls, the line of demarcation being clear; (4) the door-sills in the chamber walls are from 3 to 4 feet lower than the level of the court-wall, which is ruined below its door-levels; (5) pit-ovens within the chambers (which are usually sunk 3 feet below a given floor-level) are found to a depth of 5 feet below the ruined top of the court-wall.[1] These chambers appear originally to have formed part of the upper city, and to have been destroyed to give place to the court. The style of building is the same as that of the surface town, and the types of pottery identical. Below these rooms was found another series of chambers and a portion of a street with a small drain below it, connected with a larger vaulted drain. From the pottery, which, while showing in general the same type as above, includes a few earlier Greek types, we gather that this was an earlier Seleucidan occupation. At 10 feet there begins a regular Jewish stratum continuing to the rock, which is found at a depth ranging from 17 to 20 feet below the surface. There were no pre-Israelite remains. The houses are built of the same rough rubble as was found in the other Jewish towns we have excavated. The pottery showed the ordinary types of the middle Jewish period, including the

[1] These last two features, while confirmatory, are not conclusive, as differences of level between adjacent rooms have been observed elsewhere in the town.

Royal jar-handles with the four place-names occurring elsewhere—Hebron, Ziph, Shocoh, and Memshath.

One of the purposes in making this large clearance to the rock was to ascertain whether any souterrains, similar to those surrounding the hill, exist under the Tell itself, originally connected with the rock-surface at points where this is covered by the Tell accumulation. Such souterrains would, of course, be at least as early as the lowest stratum of *débris* proved to be Jewish. We found a series of three small chambers adjacent to each other, and connected by openings. We cleared out the first, which was completely filled with earth, and a rude staircase was seen to wind to the bottom. Walls and steps were plastered, showing either that the chamber was made for a cistern or adapted as such. The second and the third chambers are connected with the rock-surface by shafts, covered in by slabs. The third chamber contained very little earth, and when this was entirely cleared out it was proved to have no access to further chambers. A plan and sections will be given later in Mr. Macalister's series of the important souterrains of Tell Sandahannah, when comparisons may be made. At present I confine myself to the statement that we have now gained one solid fact as to the chronology of these mysterious chambers, for the discovery of bells, covered by 20 feet of *débris*, the lowest stratum dating from about 800 B.C., proves that the type originated at least as early as Jewish times.

We may now turn to the objects unearthed during the last season. These belong mainly to the Seleucidan period. The coins, which number over 75, are much worn and corroded, and await more complete examination, but the specimens thus far identified are all to be relegated to this period. The finds in pottery were unusually rich and especially valuable, as they illustrate a period about which little has previously been known. The overlapping of certain types originating at an earlier Jewish period has been ascertained, as well as the early use of certain types of lamps which extended, with some variations, into Byzantine and Arab times. The specimens include, in round numbers, 30 large jars and pots, 60 vases, 160 bowls and dishes, and 150 lamps. A large part of these were

found immediately outside the inner wall of the city, where they were evidently thrown, though it is curious to find so many unbroken. The ruin of so large a part of the town below the ground level explains the comparative paucity of finds within the walls. Over 350 stamped jar-handles of Rhodian make were discovered, principally on the surface of the land surrounding the Tell, from which they had probably been washed down by the rains. These are treated in a separate paper by Mr. Macalister. The treatment of the rest of the pottery must be reserved till later.

I may here emphasise the fact, which is to be inferred from my previous reports, that during the present campaign we have been gathering the data for a fairly complete history of the pottery of Southern Palestine from early pre-Israelite times to about the Christian era. In the reports written while the work was in progress, our account of the pottery has been necessarily confined to brief summaries of types found at given sites and to illustrations of specimens of peculiar interest. As we rightly anticipated that each Tell would add to our knowledge of one or more of the periods in question, to have attempted a detailed treatment before the close of the work would not have tended to edification. When the time comes to render a full account of the pottery, the types selected for illustration will cover a minimum of 50 sheets.

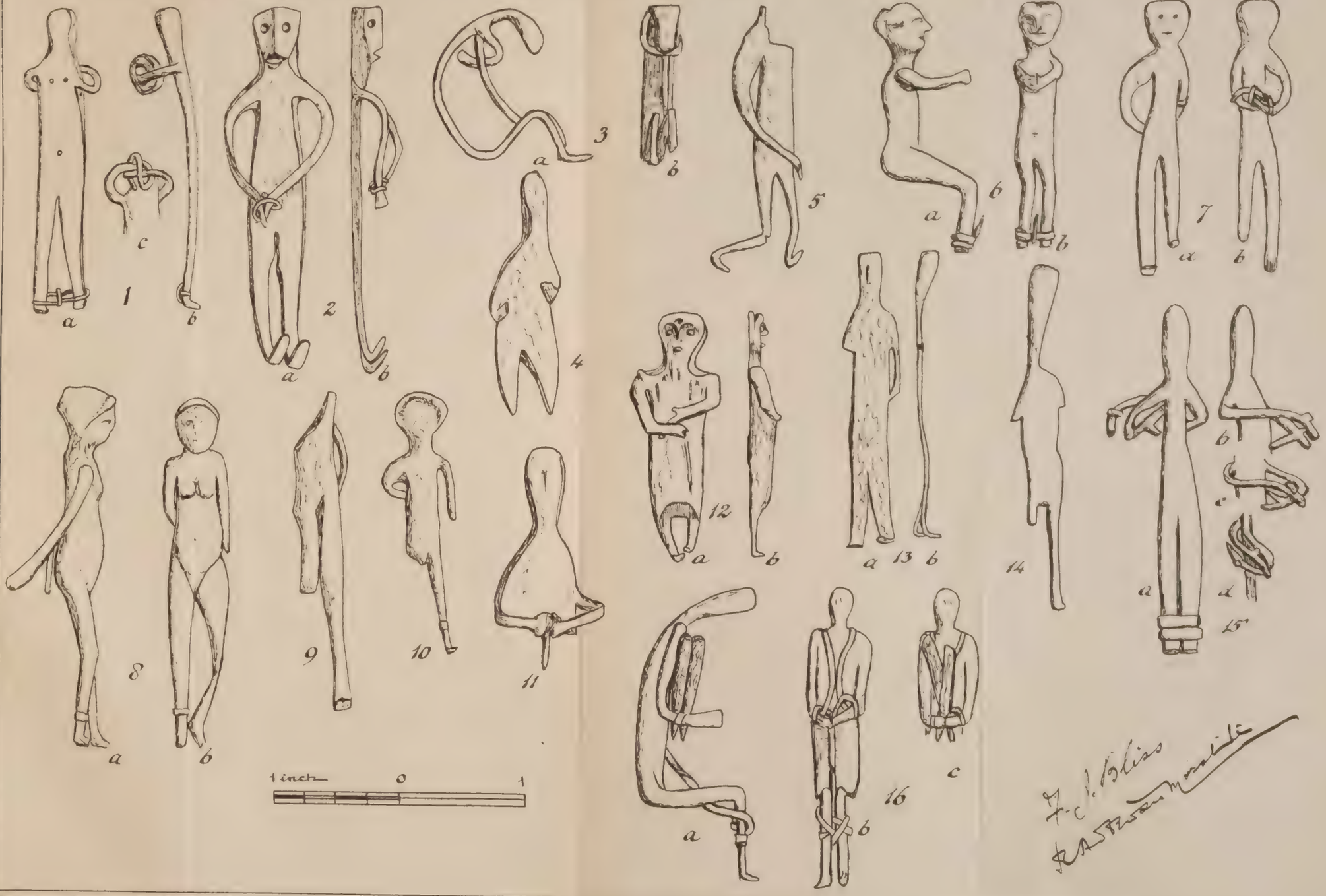
On the morning of June 14th, while searching for the city wall near its south-west angle, in the *débris* covering a rude mud flooring within the line of wall to a depth of from 2 to 3 feet, one of the men came across a minute fragment of limestone incised with Greek letters. Later in the day, in the presence of the foreman, he discovered, at the same place, a portion of a tablet $3\frac{1}{2}$ inches long, made of the same material and also inscribed in Greek. Associated with the rubbish were fragments of limestone, showing the markings of draught-boards. As the man who made the discovery was one of the most careful of the workmen, he was retained at the place, and, later, another careful digger was associated with him. I spent a good deal of time watching them dig, and saw several specimens turned out. The excavation was an extremely

delicate and slow affair, as the tablets were so friable that a blow of the pick might easily destroy them, and the incisions were so slight that often the earth and dust had obliterated all signs of lettering. Sieves could not be used, lest the jolting of the small fragments together should result in their fracture. All stones, of any shape or size, were carefully dusted, and in doubtful cases were laid aside to dry before they were finally decided upon. The carefulness of the diggers was stimulated by increased *bakhsheesh*. This excavation was continued for seven days, and extended for some distance beyond the circumference within which the tablets were scattered. The search was not abandoned till the nature of the soil was found to have completely altered. The inscribed stones, including those which show only faint traces of a few letters, number 50. Of these, four are in Hebrew, while all the rest appear to be Greek, though the slight remains upon some render these doubtful. Owing to the extraordinarily soft nature of the material, the question of cleaning and casting was difficult. In cleaning we relied, first, on the sun to harden the stones, and then on a fine camel's-hair brush. In casting, the fear was lest the process of pressing into the mould should injure the tablets. Accordingly we proceeded with caution, and I chose 27 of the hardest stones, with the result that 20 perfect casts were obtained, while practically no damage was done to any of the stones.

These 27 casts, which include all but two of the best-preserved fragments, have been sent to London, and duplicate casts of the seven which did not satisfy me, will be forwarded later. I shall probably be able to make casts of 21 out of the 23 remaining stones. Of the other two, which are too fragile for such an attempt, one is small, and, as the lettering is clear, can be easily copied, while the other, the largest of the whole series, has been photographed in two different lights. The photographs, which are a trifle under the original size, are excellent, and from them the inscriptions can be studied almost if not quite as well as from the stone itself. In fact, many of the letters appear clearer on the photograph. . . . . .

On the plate are 16 figures of captives which were found

TELL SANDAḤANNAH : FIGURES OF CAPTIVES



scattered in the *débris* in the large building we have called the "barracks" at about the level of its flooring. They are made of lead, but the fetters or ropes binding them are represented in lead, iron, or bronze. They range in length from 2 inches to 3 inches. The majority are mere strips of lead cut into shape and slightly thickened and rounded at the head. In No. 1 there is no attempt at facial detail, but dots represent the breast and navel; the arms are bound behind the body with a rope of bronze, as shown in positions *b* and *c*. In No. 2 the features are roughly indicated; the hands are bound in front with a fine lead wire, and a similar fetter was found around the ankles but in such a rotten condition that it has crumbled away. The contortion observed in No. 3 is part of the original design, not the result of accident, and represents extreme humiliation; it was probably once elaborately bound like the similar figure, No. 16, but the fetters are now gone. Nos. 4 and 5 are incomplete strips, the fetters missing.[1] In No. 6 there is an attempt at moulding. The figure is of a seated woman, the arms outstretched in supplication, the hands clasped: hair and features are indicated; the ankles are bound with an iron rope or chain. No. 7 is made of a somewhat thicker strip than is found in specimens 1–5; two dots indicate the eyes, and a line shows the mouth; the hands are bound behind with iron fetters. The female figure, No. 8, is the best moulded of the group: the face is worn but the features were probably well formed; the hair is gathered in a knot and bound with a braid or fillet; the arms are tied behind with a strip of bronze, part of which hangs down; a portion of the fetter which bound the legs also remains; part of the right leg is worn away. Nos. 9, 10, and 11 are mere fragments. No. 12 is unique, as it is the only figure which is clothed; the features are pinched out, and the arms crossed on the breast and bound with a lead fetter. Nos. 13 and 14 are very thin strips. The arms of No. 15 are tied behind and appear to be fastened to some object, conceivably an instrument of torture; the nature of the binding is shown

[1] No. 4 may represent a captive purposely mutilated by an amputation of hands and feet.

in the various positions drawn. No. 16 is similar to No. 3, but there has been some attempt at moulding. The figure, which is in a seated attitude with bent head, is most elaborately bound with a lead rope. As, in addition to the rope, the prisoner is weighted down by iron spikes (now covered with rust) driven between the arms, the exact method of binding is difficult to make out, but the following appears to be the best explanation:—The rope is coiled first around the left leg, then around the right leg, and, passing between them above the knees, binds the right hand, passes along the right breast, and, winding about the neck, comes down the left breast, binding the right hand and probably the two hands together.

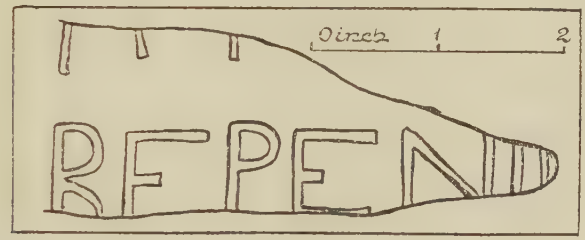
Apart from the incised tablets, three inscriptions were found. No. 1 occurs on the quarter of a column, whose radius was about 14½ inches. The fragment was built into a mass of masonry under the foundations of Room G, and thus appears to antedate this part of the upper city. The inscription, which occurs near the top of the column, is broken off at the left as

Inscription No. 1.

well as at the bottom. The left part of the inscription was hammered in breaking up the stone, and the second, third, and fourth characters are uncertain. The second may be the left bar of a letter, and the third and fourth (NO) are interpolations made after the stone was defaced, as they are thinner in character than the rest of the inscription, and are sharply cut over traces of other letters. The inscription mentions a king and queen, probably the local sovereigns; the name of the queen is missing; the name of the king is an indeclinable word; if this followed the Semitic triliteral law, it was Τήνεγ, in

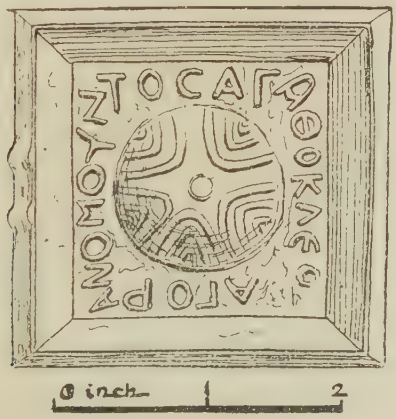
which case the preceding three letters represent the termination of some Greek word, such as χώρα, on which the genitive depended. A thorough but unsuccessful search was made for the rest of the inscription.

No. 2.



No. 3.

Nos. 2 and 3 were found loose on the slope of the Tell. No. 2 occurs on part of the base of a colossal statue of an



LEAD WEIGHT (*see* next page).

eagle, of which only one claw remains. It is possible to infer that this was a votive offering of one Crato to the god Apollo. No. 3 appears to mention the female name Berenice.

In the *débris* covering the "barracks" was found a beautiful bronze lamp, perfect except for the lid covering the oil-hole. A lead weight of 145 grammes[1] was found near the centre of the town. The back is ornamented in plain lozenge diaper. On the face an inscription in relief surrounds rosettes, also in relief. An ordinary winged Cupid of bronze, about $4\frac{1}{4}$ inches long, was also found.

No direct light was thrown by the excavations on the question of the identification of Tell Sandahannah with any known ancient site. Barely three-quarters of a mile to the north-west is Khurbet Mer'ash, which has been identified with Mareshah or Moresheth-Gath. Mareshah is mentioned in Joshua xv, 44, and appears to have had a continuous history from pre-Israelite times till it was attacked by the Parthians in 44 A.D. Josephus calls it an important town. In the "Onomasticon" it is spoken of as desert. Dr. George Adam Smith ("Hist. Geog. of the Holy Land," p. 233) notes that it was an important town as long as Beit Jibrîn was unheard of, when it disappears, and he suggests a transference of the community, though not of the name. I have called attention before to the danger of taking an identification upon a name without taking into consideration the nature of the ruins. Those at Khurbet Mer'ash are not extensive, there is scarcely any depth of *débris* on the rock, and a pavement of tesseræ appears to date the ruin at Roman times at the earliest. It is evident to me that no important city ever existed here. Tell Sandahannah owes its present name to the neighbouring ruined church of Sandahannah (St. Anne). Our excavations were confined to the walled town crowning the Tell, but remains of ruins in every direction show that suburbs extended outside the walls. The site occupied by Khurbet Mer'ash may have been one of these, and may have been the name of the town when the chief portion was christened by the name of the church. To the north of Tell es-Sâfi and to the south of Tell

[1] The two little knobs at one edge may indicate that the weight contains double the standard.

ej-Judeideh are isolated ruins, apparently of Roman date, bearing the names Khurbet es-Sâfi and Khurbet Judeideh respectively. I would very tentatively suggest an amendment to Dr. Smith's theory, by proposing to place the main part of Mareshah at a site where the remains correspond more closely with its extended history. Tell Sandahannah contains no remains too late to fit into this theory, though I am bound to point out that the earliest remains found by us do not date further back than 800 B.C. However, we hardly more than touched the lower stratum of the Tell, and it is possible that pre-Israelite remains exist at points unexplored by us.

In former reports I have referred to the rifling of ancient cemeteries which has been going on near Beit Jibrîn in recent times. A few such tombs have been rifled on the slopes of Tell ej-Judeideh, and our unsuccessful search for others has been chronicled. A group of tombs has also been rifled on the hill to the east of the Zakarîya road, about a quarter of a mile south of the second Roman milestone from Beit Jibrîn. Two very large cemeteries have been systematically excavated, one to the east of the road from Deir-en-Nakhkhas, where it enters the olive grove, and the other to the west of the road from Zakariya, where this enters the grove. Two large cemeteries also exist to the south of the town. One is on the hill to the west of the road leading to Tell Sandahannah, at a point not far from the well at the entrance to the valley. This appears to have been thoroughly rifled, the contract having been let for eight napoleons to local speculators. The other is further up the valley, and not only extends on both sides of the road, but the road itself is honeycombed with rifled graves. Fortunately, the planting of our tents at Tell Sandahannah arrested the excavation, though the majority of tombs had already been rifled, as the Fellahîn feared to pursue their unlawful digging under the eye of the Imperial Commissioner and under the shadow of the Turkish flag. Our search for tombs in this cemetery was begun August 11th, and continued for 10 days, at the end of which time the area appeared to be exhausted. We opened 12 tombs which had escaped rifling by the Fellahîn, but discovered to our chagrin that 10 of these

had been robbed at some earlier period, unknown to us as well as to the natives themselves. From them we learned that only about 10 per cent. of the tombs opened by them were discovered intact, a fact which not only alleviated our disappointment, but explained the comparatively small number of objects which have found their way to the archæological market. . . . .

Amongst numerous articles found was a female figure in terra-cotta, of which photographs in two positions are sent. On the head is a bonnet or head-dress, under which the hair is gathered in a knot behind. From the shoulders depends a cloak, which leaves the upper part of the body bare and is held up in front by the left hand. The right hand clasps the left breast.

In the other unrifled tomb are five hollow bench-graves, closed in by covers. In one case only these were cemented together. Within the graves were two gold earrings and two nails, one iron the other bronze. . . . . .

Jerusalem, *September 10th*, 1900.

PRELIMINARY OBSERVATIONS ON THE ROCK-CUTTINGS OF TELL SANDAHANNAH.

By R. A. Stewart Macalister, M.A.

On the contour plan[1] accompanying Dr. Bliss's Report the plans of nearly all the artificial caves on Tell Sandahannah are laid down. There are a few which (having deep perpendicular entrance shafts that required a longer crane rope than we possessed) could not be entered: two or three others within the limits of the plan which were not measured for lack of time (so far as explored, these add nothing to our knowledge of the subject), and a few outside the limits of the plan (of these only two are of special interest, and they have been planned separately). As some 50 cuttings remain after these are excluded, it may reasonably be claimed that sufficient material for the study of the Tell Sandahannah caves has been collected.

[1] Publication of this plan is deferred (*see* p. 319).

(*To face p. 338.*)

FEMALE FIGURE IN TERRA-COTTA.

Front View.

Side View.

The caves in this group show several peculiarities of design. In nearly every case the bell-chambers are provided with parapets on the outside of the staircases. In systems of grouped chambers the various apartments communicate with each other as a general rule directly, not (as at Khurbet el-'Ain and Zakariya) by passages. When passages do occur they usually are sufficiently large to be traversed without stooping; there are only two or three "creep passages" in the whole series. Another important peculiarity consists in the incorporation of stepped bell-chambers with extended systems; these are absent from the groups of chambers I have examined elsewhere.

A distinctive and, in some respects, puzzling feature of the Sandahannah series is the large number of columbaria found even in remote parts of these excavations. There is only one circular columbarium on the Tell (outside the limits of the plan, to the north-west). On the other hand, there are many columbaria which on plan consist of groups of more or less rectangular passages: these are either independent excavations, as in a large example on the plan to the west,[1] and another, outside the plan, south-west from it; or associated with other chambers, as in several of the great souterrains to the east and south-east. One columbarium is distinguished from all the rest by the care which has been bestowed upon it, both in design and workmanship. This is of course the well-known *Sûk*; it calls for a more extended description than can be accorded to it in the present cursory remarks.

Besides the columbaria there are several examples of elaborate rock-cut oil presses, which are of considerable interest. These will be fully described later, with plans, &c., of the finest example.

One chamber has every appearance of having been a rock-cut stable, with stalls, tether-holes, &c.

In the remaining chambers examined—considerably over 400 in number—there is a provoking absence of indication of their purpose. Some of the bell-shaped pits are undoubtedly

[1] There are one or two chambers connected with this system not showing loculi, but they are insignificant in comparison with the extent of the system.

ALPHABET OF LETTERS USED ON OLD-HEBREW JAR-SEALS

PALESTINE EXPLORATION FUND.

To Face Page 341.

	Jar - Seals	Dîbân	Siloam	Sidon
א				
ב				
ג				
ד				
ה				
ו				
ז				
ח				
ט				
י				
כ				

	Jar - Seals	Dîbân	Siloam	Sidon
ל				
מ				
נ				
ס				
ע				
פ				
צ				
ק				
ר				
ש				
ת				

Photo Lithographed & printed by James Akerman 11 Queen Square W.C.

Ligatures:

cut away (as in one of the olive presses, in which one upright staple has been replaced by masonry, the others all being rock), and (c) vaulting over a chamber or passage near the top surface of the rock. In the majority of cases the vault is a barrel arch of narrow span (there is one fine wide arch only) with regularly cut voussoirs. There is one false-arch dome in the series stopping up a temporary manhole. The masonry is all built in brick-shaped blocks of *howwar* (clunch), and is always remarkably true and well finished.

ALPHABET OF LETTERS USED ON OLD-HEBREW JAR SEALS.

By R. A. Stewart Macalister, M.A.

The preparation of the accompanying plate, intended to illustrate the report printed in the July number of the *Quarterly Statement*, was unavoidably delayed. All the varieties of the different letters are shown and compared with the characters of the three principal monuments engraved in the "Phoenician" alphabet. The reference letters denote the type of handle on which the letter was found. H, S, Z, M, stand for Hebron, Shocho, Ziph, and ממשת respectively; H^2 and H^4 denote "two-winged type" and "four-winged type" of "Hebron" seal: and so for the rest. The letters Wt. stand for "weight," indicating that the character appeared on one of the small dome-shaped stone weights found at Zakarîya and elsewhere. When no indication of source is given the stamp is one of those bearing the names of private owners.

THE INFLUENCE OF THE ÆGEAN CIVILISATION ON SOUTH PALESTINE.

By F. B. Welch, Esq.

References.

Q.S. = *Quarterly Statement*, Palestine Exploration Fund.
M.M.C. = Bliss: "Mound of Many Cities."
C.M.C. = Myres and O. Richter: "Cyprus Museum Catalogue" (Oxford, 1899).
P. and C. = Perrot and Chipiez: "Histoire de l'Art," vols. i to vii.
F. and L. = Furtwängler and Löschke: "Mykenische Vasen" (Berlin, 1886).
B.S.A. = "Annual of the British School at Athens."
I.K.G. = Petrie: "Illahun, Kahun, Gurob" (Egypt Exploration Fund).
K.G.H. = Petrie: "Kahun, Gurob, and Hawara" (Egypt Exploration Fund).

The influence of the Ægean civilisation on South Palestine can hardly be said to be appreciably felt before the latter half of the Bronze Age. At this period the Mykenæan civilisation, though already decadent, was flourishing still very vigorously in the East Mediterranean, especially in places like Rhodes and Cyprus, the latter of which chiefly concerns us here. This is natural, since the island served as an intermediary between East and West, owing to its geographical position, and was peopled partly at least by representatives of the Mykenæan civilisation—though, of course, this says nothing as to the *racial* affinities of the areas in question—and here seemingly this civilisation lasted on later than in the actual Ægean area. At a later period, at the beginning of the Iron Age, when the current was reversed, and the decadent Mykenæan art gave way to the young Phoenician civilisation, and when there was little *direct* communication between the Levant and the Ægean, Cyprus shared with South Palestine in a practically identical culture, largely of local origin, but which developed more vigorously and freely in Cyprus—probably owing to its early Mykenæan tutelage. To begin with the earliest Palestinian civilisation yet known, that of the so-called "Amorite" period, dated by the Tell el-Hesy finds to a date earlier than B.C. 1500, we find in Palestine a very peculiar type of pottery, characterised chiefly by the large use made of polishing and burnishing, especially in the case of red ware. The style is in many ways similar to that of the pre-dynastic

"New Race" of Egypt, and to Lybian pottery found in Egypt; and during this same period in Cyprus we find a large class of pottery, the shapes of which, based on gourd-vessels, are no doubt usually different from the Palestinian, but the characteristic high polish of which, found in its perfection in the earliest specimens, and gradually degenerating, seems to have been introduced from abroad. Exactly similar specimens have not yet turned up in Palestine, but at Tell ej-Judeideh was found a fragment of a gourd-shape jar in a sort of debased red ware, and no other area can be put forward as a possible source of origin of the technique, except the south-east corner of the Levant.

During this same early period Cyprus was the centre and source of the copper trade, with only the Sinaitic peninsula as a rival, and, judging from the celts of the earliest city of Tell el-Hesy, of the primitive unflanged type, springing from a neolithic prototype, Palestine fell within the Cypriote sphere of influence—partly, at least. Similar celts occur in Cyprus and Hissarlik. (From Beyrout comes a dagger with bent tang of the common leaf-shaped type of the later Cypriote Bronze Age.)

After the early red ware certain classes of pottery begin to appear in Cyprus, and become very common in the late Bronze Age, when they are found along with specimens of Mykenæan ware—though beginning in pre-Mykenæan times. Specimens of these classes likewise appear commonly in Palestine. Such are firstly the semicircular "milkbowls" with the "wishbone" handle (C.M.C., Bronze Age Pottery, II, 4, Plate iii, 301, 303). In Cyprus these do not appear as late as the Greco-Phoenician period, but their earliest limits go back into the third millenium B.C. (*cf.* their discovery at Thera (F. and L., No. 80)—Athens, Hissarlik, Sakkara, and Tell el-Amarna). In Palestine they date to about B.C. 1400; and seem to have been locally imitated, few of the Palestinian specimens being of the high Cypriote standard, while the peculiar handle is found in a degenerate form in coarse red Jewish ware (*cf.* Petrie's "Tell el-Hesy," No. 221, where it is called a "penholder"; another specimen came from Tell ej-Judeideh).

So, too, the large and small black metallic-looking jars, both of the plain and white-painted types (*cf.* C.M.C., Bronze Age Pottery I, 3, Plate ii, 252 *seq.*, 271, 277), occur in Palestine at the same date, while in Egypt they were found in the Maket

Tomb at Kahun (*c.* 1450), and at Illahun in degenerate forms as late as the XXIst–XXVth dynasties (*cf.* I.K.G., xiii, 31; xxvii, 14-17, 19-21; K.G.H., xxiv, 14, 15). A little vase of this ware in the form of a bull comes from the surface of Blanche Garde at Tell es-Safi: the type is common in Cyprus (*cf.* P. and C., iii, No. 502).

The third type of vase, common to both areas, is of flaky grey clay (C.M.C., Bronze Age Pottery I, 5), and is common in Cyprus in pre-Mykenæan and Mykenæan times. The common Cypriote type, a small jug, with narrow neck, swollen rim, and a button-like foot, has not yet been found in Palestine (a similar shape, but in coarse red burnished ware, turned up in the Amorite level of Tell ej-Judeideh), but the specimens in M.M.C., iii, 89–90, are of the same ware, though not incised, as the Cypriote specimens usually are, while in the British Museum is an incised specimen from Bethlehem. In Egypt the type only occurs so far on XIIth–XIIIth dynasty sites (chiefly Kahun and Khataneh), of foreign origin; probably the source of origin is in South Palestine.

All the above three classes occur in Cyprus as late as Mykenæan times, *i.e.*, as Mykenæan vases of Furtwängler's third variety of "Firnissmalerei," which in Greece itself would date from the fifteenth to the end of the twelfth centuries, but in Cyprus and the Levant probably descends later.

When in South Palestine we turn to actual Mykenæan imports, we find they occur usually in the form of small fragments, chiefly at Tell es-Safi. This was certainly a Philistine stronghold, which is suggestive in view of the probable western or north-western origin of the Philistines. The pieces found are all of the third variety (*vide supra*), with buff or light yellow surface, and designs in a glaze, varying from red-brown to black. The shapes, as far as can be made out, are chiefly large jars, with high solid foot, ornamented with horizontal bands—shallow bowls, painted inside and out, such as are common in Cyprus, and may be of Cypriote manufacture—the top of a "bügelkanne" of the small, flat early type, with horizontal bands, and also pieces of a pyxis. The patterns are chiefly plain broad or narrow horizontal bands, the scale pattern, and wavy lines singly or in parallels. Naturally such pottery, so immensely superior to the wretched local ware, provoked imitation, as elsewhere. Several fragments of such

local copies occurred, in which the colour used was hardly a glaze at all, but merely dull paint; while from Tell es-Safi came the "bügel" of a large pseudamphora, in unpolished poor buff ware, with traces of a tree-like stylised design, painted in a dull dark brown. Exactly similar imitations occur very commonly in Cyprus and elsewhere in the transitional and early Iron Age.

The influence of Mykenæan vases is further seen in certain shapes, *e.g.*, the *στάμνος* of M.M.C., No. 179, while M.M.C., No. 183, is a common sub-Mykenæan shape in Greece and the Levant. Further, a whole class of small vases in South Palestine show the same influence: they are small cups on a very slight ring-base, with two little handles, fixed on at about half a right angle to the sides of the vase; the clay is reddish-yellow, and the surface is either left rough or in two cases covered with a greeny whitewash, on which designs are very carelessly painted in dull black or brown, consisting usually of horizontal bands, while on the handles are spots or small cross lines. Two have a design, which occurs elsewhere in South Palestine (*cf.* the sub-Mykenæan "bügelkanne," *supra*), consisting of two divergent spirals with the intermediate space filled in with parallel angular lines, the origin of which can be clearly seen in such Mykenæan vases as F. and L., Nos. 378–9, 381–2. Similar looking vases are common in the early Iron Age of Cyprus.

So, too, the "pilgrim-bottle" shape, which in Egypt goes back to at least the XVIIIth–XIXth dynasties, and is not of Mykenæan origin, occurs at the same period in Greece, the Levant, and Palestine. Other vases common to Cyprus and South Palestine are figured together in M.M.C., Fig. 87. Of these the small pointed-bottom juglets in greenish clay, trimmed below to a point with a knife, are common in Cyprus with Mykenæan ware, and the exact counterpart of M.M.C., iv, 175, with painted designs, occurs in the Mykenæan find at Enkome, Cyprus. The pointed base is common to a large number of vases of a sub-Mykenæan date in South Palestine, where it gradually changes to the flat or rounded base of Jewish times. From the same group of vases the "cockle-shell" lamp of the early footless type, as well as the "cup-and-saucer" vases (*cf.* C.M.C., iv, 963), are both common in Cyprus, but only at a much later date, *circa* 9th–7th centuries, being never found with the pointed juglets—but in South Palestine the lamp certainly occurs as early as B.C. 1400, and in

Egypt at an XVIIIth dynasty date, which fact, combined with its later series of developments in Palestine, may point to the latter area as the source of origin.

Mykenæan influence may also be traced in the forms of the vases (*Quarterly Statement*, January, 1900, Plate ii, 2–6).

If we pass to the period following the fall of the Mykenæan civilisation, when the Phoenicians were the dominant power in the East Mediterranean, the points of contact with Greece itself are very few, since there was very little direct communication seemingly—but there are so many points of resemblance now between Cyprus and Palestine, that we must infer that both shared in a similar civilisation, which had, of course, local sub-varieties, and which was largely due to Phoenician influence working on local material. We have seen above there is a class of small cups common to both lands. We now turn to a second and larger class of later date. The characteristic shapes (C.M.C., iv, 990, 994, 1005, &c.) are small egg-shaped vases, with or without a small ring-foot—a small thin cylindrical neck with thick flat lip projecting horizontally—and midway up the neck a sort of ridge running round it horizontally, to which the handle or handles join; or else the neck expands into a disproportionately wide funnel-shaped orifice (*cf.* C.M.C., iv, 980). The first shape passed largely into the Jewish ware (*cf.* M.M.C., 232, 239), and the second shape also occurs later. The surface is highly polished to a reddish or buff colour, on which paint of a dull black, and often also of a dull red-brown, is applied; often the black is laid on *before* the polishing, and the brown, if added, is added later, giving the black a shining glaze-like look. The designs consist usually of rows of broad and narrow horizontal lines, often with a zone on the shoulder of sets of small concentric circles. In Cyprus, however, the range of form and design is far wider than in Palestine, and the commonest type is a dark-red ware, dating to the VIIIth–VIth centuries (C.M.C., Greco-Phoenician Pottery II, 3), which seems to be rare in Palestine (a small cow's head of a brilliant dark-red with a lattice design on the forehead in dull opaque black, is probably of the same technique). One small vase from Tell ej-Judeideh slightly approaches it, and it seems to be a Cypriote local variety. In Palestine the commonest colour is a light yellow or buff, and this technique is applied to a variety of objects, *e.g.*, a large cylindrical object, probably the pedestal of a lamp, ribbed

horizontally on the lower part, where the body colour is a highly polished buff, and the ridges are in sienna and light brown alternately, the latter applied before polishing.

This light buff variety, though common in Palestine, never approaches the high pitch of excellence shown in Cypriote specimens; usually the polishing is carelessly done, leaving very clear traces of the instrument used, and showing dull unpolished spaces between polished lines. A large strainer-spout from Tell es-Safi in buff ware, with black and white designs, has inside the spout a system of transverse lines, alternately polished and rough. This, however, very likely is due to a reminiscence of the old "Amorite" pattern-burnishing, which may in fact have largely aided the extension of this later technique; many of the later Amorite jars are polished all over the surface. Beside being common in Palestine and Cyprus, the class occurs in Sardinia in a degenerate form (British Museum A, 1680–7); also in geometric tombs in Rhodes and Crete, and hence is very probably connected with the expansion of Phoenician influence.

Another point of similarity between South Palestine and the Cypriote Iron Age is the presence of numbers of large coarse jars, with the peculiar pinched lip characteristic of this period, and which appears in the Phaleric ware of Attica (*cf.* C.M.C., iv, 1034–86); and, further, a vase from Tell el-Hesy with broken neck has, on a polished red-brown surface, a design in dull, dark red-brown of sets of parallel curved lines, crossing and recrossing each other at various angles. This pattern occurs commonly, but on a different class of vase, in a Cypriote transitional form (C.M.C., iii, 336, 307).

When we turn to the class of native *painted* ware, as distinct from the earlier Mykenæan imports, we find it to be of rather a unique type, certainly of local origin. The pieces found are chiefly bits of large bowls with thick nearly vertical sides. There are two main classes—a finer very homogeneous class in fine grey clay, burning red, on which a dull white wash is applied; on this designs are drawn in dull black, and a dull cherry-red is used for subsidiary purposes. As a rule, the surface to be painted is divided up into metope-like sections by sets of vertical lines, often varied by wavy lines and zigzags; whilst inside the metopes so formed is drawn the main design, consisting usually of a spiral in the centre of which is a cross with the arms filled in with red,

or some design into which the spiral enters, or the degenerate tree-ornament mentioned above, or most commonly of all, a very peculiar bird with one wing raised—such a type the exact copy of which occurs nowhere else, though the attitude is common to birds on certain geometric vases, *e.g.*, of Cyprus. The metope-like division of spaces is a characteristic of all geometric ware, which also employs the wavy line between two verticals; the spiral is, of course, the commonest ornament of Mykenæan pottery, though coming originally from Egypt, it can quite well have reached Palestine directly, though this is doubtful, as it does not occur commonly on the earlier Palestinian ware. Similarly the device of wavy lines dropping from a row of semi-circles, and the sets of concentric semi-circles and semi-ellipses are common in later Mykenæan art, while the peculiar cross is found in several varieties of Greek geometric ware (*e.g.*, that of Thera, Crete, and Attica). And the whole technique is practically identical with that of many vases of the Greco-Phoenician epoch in Cyprus.

The second class is of much coarser make, with white or reddish-white wash, and very carelessly drawn designs in light reds and browns. The figures are not arranged symmetrically, or in metopes, but disposed simply as the artist pleased. A very common figure is an ibex or goat—usually the outline is drawn first, and then filled in in lighter paint; in one case two goats are by a tree, one standing up on its hind legs and feeding off the branches (*cf.* F. and L., 412–3). Other designs are of simple linear origin. As opposed to the first class, this group seems to be of more distinctly local inspiration, *i.e.*, as due to the native potters, uninfluenced by foreign imports, while the first class is more affected by external influence. Some of this native class goes back to a date earlier than any Cypriote painted ware yet found—on the edge of an "Amorite" bowl with the early finger-mouldings, on a coarse chalky-white slip are painted lines in dull cherry red, and on one of the long early handles on a coarse yellowish-white surface is a sort of vegetable design in dull red. At Tell el-Hesy painted ware is said to occur in the second and third cities, *i.e.*, B.C. 1400 and earlier, *cf.* M.M.C., Figs. 106–9—where the bird is of a quite different type to the later variety, and seems equally unique—and the pieces of vases figured are all in a finer clay with harder surface. Several such have what

is almost a real varnish, and such are probably influenced by the Mykenæan technique, though it seems very doubtful if they belong to the very early date ascribed to them. The later specimens (Classes 1 and 2 above) come from Cities IV and later, *i.e.*, B.C. 1400 downwards, along with Cypriote vases of such mixed dates as the cockle-shell lamps, "cups and saucers," painted juglets, black base-ring ware, and the "milkbowls."

Now, arguing from its likeness to Greco-Phoenician wares in Cyprus, we should feel inclined to remove this painted ware of Classes 1 and 2, along with the "cups and saucers," and perhaps also the lamps, to a date certainly after B.C. 900, perhaps to centuries ix–vii. The whole facies of this pottery forbids us to assign it to Mykenæan times.

Turning from the pottery to other small objects, the alabaster vase in M.M.C., Fig. 224, said to be of Jewish date, is of common occurrence in Cyprus in Mykenæan times, or even earlier, along with the "milkbowls" and base-ring ware, and in Egypt occurs in XVIIIth–XIXth dynasty sites (*cf.* K.G.H., xviii, 6; I.K.G., xvii, 10; xviii, 23; xx, 8).

Both Cyprus and the Syrian and Palestinian areas have figurines of the nude Goddess of Fertility, usually holding her breasts in her hands; one from Palestine represents her as a pregnant woman, seated in a chair, with which *cf.* P. and C., vol. iii, Fig. 143, from Phoenicia. A small Palestinian terra-cotta head with flat crown is identical with Cypriote specimens, while numerous little cows, dogs, centaurs, &c., occur in both lands. To the same Greco-Phoenician date belong the large terra-cotta masks from the Tell es-Safi rubbish heap (*cf.* P. and C., iii, Figs. 130, 642–3; B.S.A., vol. v (1898–9), Plate x, 10, where they are called "Aphrodite masks," and assigned to the first half of the eighth century).

For smaller metal objects the pins from Cities II and III at Tell el-Hesy (M.M.C., p. 59, Nos. 98–100), with a loop in the shaft, correspond to a common Cypriote type (C.M.C., iii, 591, p. 54, Pins γ) of Bronze Age date (*cf.* I.K.G., xxii, 1–3, from Gurob).

In *Quarterly Statement*, April, 1899, Plate iv, 22, is published, under the title "Vase-Handle," a broken fibula, which is of course of Western origin, though quite early introduced into the East (*cf.* the fibula on the priest's dress in the late Hittite figure from Ibriz, in the Taurus range, P. and C., iv, Fig. 354).

To end up with, little black stone cylinders with rudely cut designs occur in Palestine, as all over the Levant, especially in North Syria and Cilicia, while the small conical North Syrian seals occur in Palestine (*Quarterly Statement*, October, 1899, p. 332) and Cyprus.

HIGH PLACE AND ALTAR AT PETRA.

By Samuel Ives Curtiss, D.D.[1]

The student of ancient Semitic worship will find an abundant reason for a visit to Petra in the existence there of a high place and a remarkable altar, which, aside from a passing notice,[2] has been overlooked until it was recently rediscovered by Professor G. L. Robinson, Ph.D., of Chicago. The report of his discovery of the place led to a careful examination of it by the writer.

Situation.—A little north of the citadel on a ledge of rocks, about 520 feet long by 90 feet wide, are a high place and altar which have been hewn from the solid rock. The ledge, which rises to a height of several hundred feet above the Wady, runs very nearly north and south, with a slight inclination to the east. It is in the midst of an amphitheatre of hills and mountains, which are much higher, especially on the east and south, and conveniently near the old dwellings cut out of the rock. The ascent is now an arduous one, though once made easier at different stages for the ancient worshippers by steps hewn out of the rock, now much worn away. Other approaches, which once doubtless existed, have disappeared.

The top of the ledge is a plane surface, except for a slight natural dip from north to south. The objects most noticeable

[1] The writer is indebted to Mr. R. A. Stewart Macalister, of the Fund, for criticisms and suggestions, as well as for plans and drawings. The measurements were taken by myself on a visit to Petra, July 12th and 13th, 1900, with the assistance of Rev. A. Forder, of Jerusalem, who had visited the place during the month of May with Dr. Robinson.

[2] Edward L. Wilson, an American, editor and proprietor of the "Photographic Magazine," seems to have been the original discoverer. He mentions it as "one of the 'altars in high places' consecrated to Baal." *See* his "Scripture Lands," London, 1891, p. 104.

PETRA

Rock-Cut Altar &c

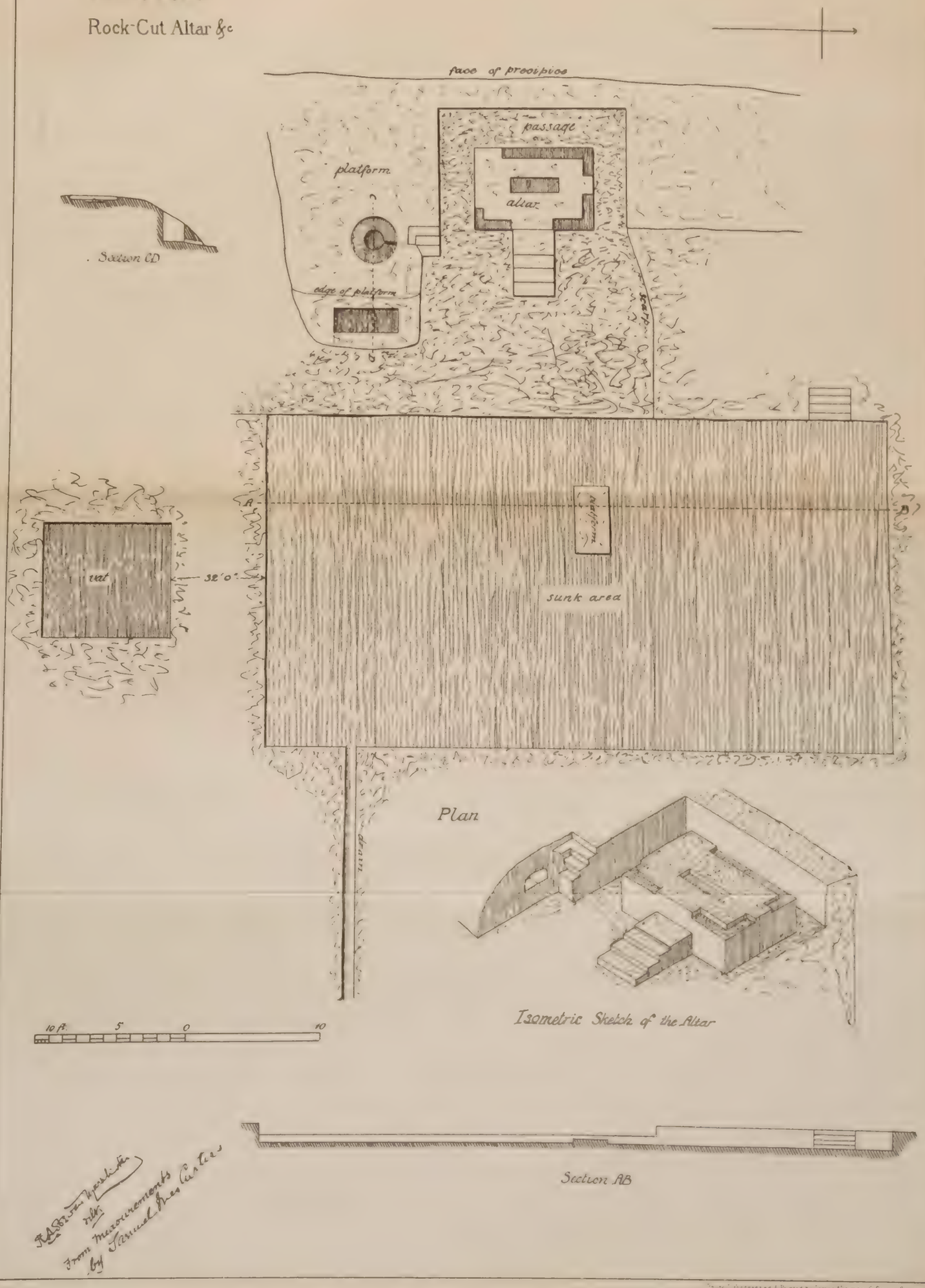


Photo-Lithographed & Printed by James Akerman, 6, Queen Square, W.C.

on this ledge are: (1) an altar on the west side; (2) a platform immediately south of this; (3) directly in front of the altar, toward the east, a rectangular sunken area, containing a small platform facing the altar; and (4) a little further south of the area a vat.

The Altar.—The altar is separated from the adjoining rock, of which it was a part, by a passageway on its north, south, and west sides. The height of the altar and of the adjoining rock is about the same. On the east side the ledge has been cut down so that it is on a level with the foot of the altar. This surface has been still further excavated, forming the rectangular area in front of the altar.

The dimensions of the altar are as follows:—Length, from north to south, 9 feet 1 inch; width, 6 feet 2 inches; height at the highest point, on the south-west corner, 3 feet.

The direction of the altar is nearly north and south, with a slight inclination to the west. None of the dimensions, followed by the ancient workmen, are exact, judged by modern standards. Possibly this fact may be of importance in determining the age of the altar.[1]

On the top of the altar is a rectangular hollow, or pan, perhaps designed for the fire,[2] 3 feet 8 inches long, 1 foot 2 inches wide, $3\frac{1}{2}$ inches deep. This hollow is 2 feet 3 inches from the west edge of the altar, 2 feet 9 inches from the east, 2 feet 8 inches from the north, and 2 feet 9 inches from the south. There is another feature which might suggest horns of metal were it complete. It is not found, however, on the south-west corner. This feature consists in cuttings or depressions. The cutting on the south-east corner runs 1 foot 6 inches long, 8 inches wide, and 3 inches deep along the south side of the altar; 2 feet 11 inches long, $8\frac{1}{4}$ inches wide, and $1\frac{1}{2}$ inches deep on the east side. On the north-east corner the cutting runs 2 feet 7 inches long by 9 inches wide along the north side; 3 feet long, 9 inches wide, and 4 inches

[1] Mr. Macalister says he has observed the same fact in the measurement of rock-cut tombs, which may be due to the difficulty of following exact details in excavating from the solid rock, but the Treasury of Pharaoh at Petra, not to mention other excavations, seems to afford an example of exact proportions.

[2] Similar pans for fires, used in the preparation of coffee, are found in the medafes of the Jebel-ed-Druse.

(*From a Photograph.*)

SUNKEN AREA AND ALTAR AT PETRA.

(*From a Photograph.*)

MONOLITH AT PETRA.

deep on the east side. On the west side, running north, is a cutting 6 feet 11 inches long, 8½ inches wide, 3 inches deep. This leaves no cutting on the south-west corner.

Another interesting feature of this altar is in the steps on the east side leading to it. The top step, which is widest of all, forming a platform on which the officiating priest might stand, is 3 feet 3 inches long, 1 foot 11 inches wide, and is only 1½ inches above the one below it; the breadth of each of the other steps is 12 inches, the second step is 5½ inches above the one below, the third step is 4 inches above the one below, and the fourth is the same height above the surface of the ledge. The passageway, on three sides, is in width 3 feet 1 inch on the north, 2 feet 9 inches on the south, and 2 feet 5 inches on the west. Besides the general plan and the isometric view of the altar on the accompanying plate reference may be made to the photograph for illustrations of these various details.

Platform.—Of almost equal interest with the altar and just south of it, separated only by the passageway, is a platform which seems to have been used for the preparation of sacrifices. It is 11 feet 9 inches long from north to south, 16 feet 6 inches wide, and is ascended by four steps in the north-east corner; the lowest is 1 foot 6 inches high from the ledge, 8 inches wide; the second is 4½ inches high, width the same; the third is 5 inches high, 9 inches wide; and the fourth is 5 inches high. The average length of the steps is 1 foot 10 inches, though they are longer at the top and shorter at the bottom. The height of the platform is 2 feet 9 inches.

On the top of the platform is a remarkable and suggestive feature with reference to its probable use in the preparation of sacrifices. This consists in two circular and concentric pans, with vertical sides, cut out of the rock, with a conduit leading from the lower pan which may have served to carry away the blood of the victim. The larger pan is 3 feet 8 inches in diameter, its depth is 3 inches; the second or lower pan is 1 foot 5 inches in diameter, its depth is 2 inches. The conduit is 3 feet 2 inches long, 2 inches wide, 3 inches deep (*see* plan of platform).

On the east side of the platform, running north and south, is a trench resembling a rock-hewn grave, 5 feet long, 1 foot 8 inches wide, 2 feet 8 inches deep on the west side, 1 foot 2½ inches deep on the east side. At the bottom, on the east side of it, is a circular

hole, evidently designed to drain off whatever liquid might be put into it (*see* Section CD). On the north side is an arched opening 2 feet 2 inches in length, 1 foot in depth and width, and 10 inches high, with a trough in its floor 7 inches deep.

The Rock North and West of the Altar.—The rock towards the passage, remaining at the north of the altar, is of the same general height, but of smaller superficial dimensions, than the platform. There is no indication of the purpose, if any, for which it was used. The rock on the west side is quite narrow. It is a continuation of that on the north and the platform on the south. It really walls off the west side of the altar from the brink of a precipice about 30 feet deep, and this may have been the reason why it was not cut away.

The Sunken Area.—A short distance east of the altar is a sunken area, the shape of a parallelogram, which has been cut in the rock. It is 47 feet 4 inches long, 24 feet 4 inches wide. Its depth, except as mentioned later, is 15 to 18 inches. In this area is a small platform 21 feet $2\frac{1}{2}$ inches from the north side of the area, 23 feet 6 inches from the south, and 5 feet from the west. Its dimensions, running east and west, are 5 feet in length, 2 feet $7\frac{1}{2}$ inches in width, and 4 inches in height from the bottom of the area. The west side of the area is not of uniform height; 2 feet 10 inches from the north-west corner is a rectangular depression 3 feet 1 inch long, connecting with four steps on the upper part of the west side of the ledge. South of this depression the average height of the west side of the area continues 11 feet 10 inches, and then the side has been cut down 8 inches to a lower plane. All the rest of the way to the south side the average height of the side of the area is about 10 inches. The other sides vary, as indicated, from 15 to 18 inches in height.

On the east side 6 feet 1 inch from the south-east corner is a drain 8 inches in width and 18 feet in length, running down the east side of the ledge. As to the purpose of this sunken area, the suggestion of Mr. Macalister that it was the place set apart for the worshippers in front of the altar seems probable, and is strengthened by a consideration of the steps leading up to it from below. It may be that the little platform was the place occupied by the one bringing the victim. A general view of this platform is shown in the photograph.

Vat.—32 feet south of the area is a vat 9 feet 9 inches in length from north to south, 8 feet 6 inches in width. It shows signs of old cement. The average depth of the vat to the soil with which it is partially filled is 3 feet.

Monoliths.—South-east of the citadel is another interesting feature which may have been connected with ancient worship. The rock here has apparently been quarried away for the sake of building material, leaving two monoliths resembling immense menhirs. They are perhaps 100 feet apart. The one towards the west, which on its north side rises from the brink of a precipice, has the following dimensions at its base:—West side, 10 feet 8 inches; south side, 7 feet 3 inches. The monolith to the east has a measurement on the south side of its base of 5 feet, on the west side of 6 feet 4 inches. These monoliths seem to be about 18 feet in height, and to have a diameter at the top of about 2 feet 6 inches. They are shown in the photograph.

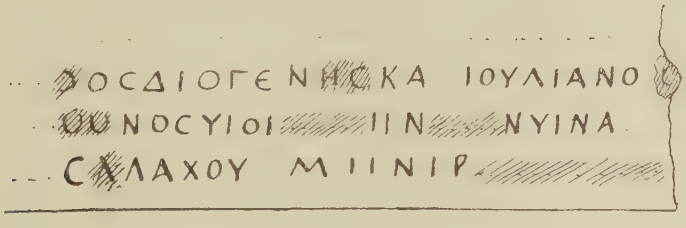
Jerusalem, *July 24th*, 1900.

REPORTS FROM GALILEE.

By Dr. G. Schumacher.

Beisân.

On the ancient high road leading from the Jâlûd Bridge, near Beisân (Bethshean), westwards towards Zer'ain (Jezreel), we came across a number of sarcophagi scattered about and partly overturned, from one of which I copied a Greek inscription, and enclose a squeeze. With the kind assistance of Messrs. Monahan and Foord the following three lines were deciphered, the other parts being obliterated:—



The sarcophagus is hewn out of a large, so-called 'Ajlûn, marble block, measuring 7 feet in length and 2 feet 7 inches in width; a simple ornament crowns the top end.

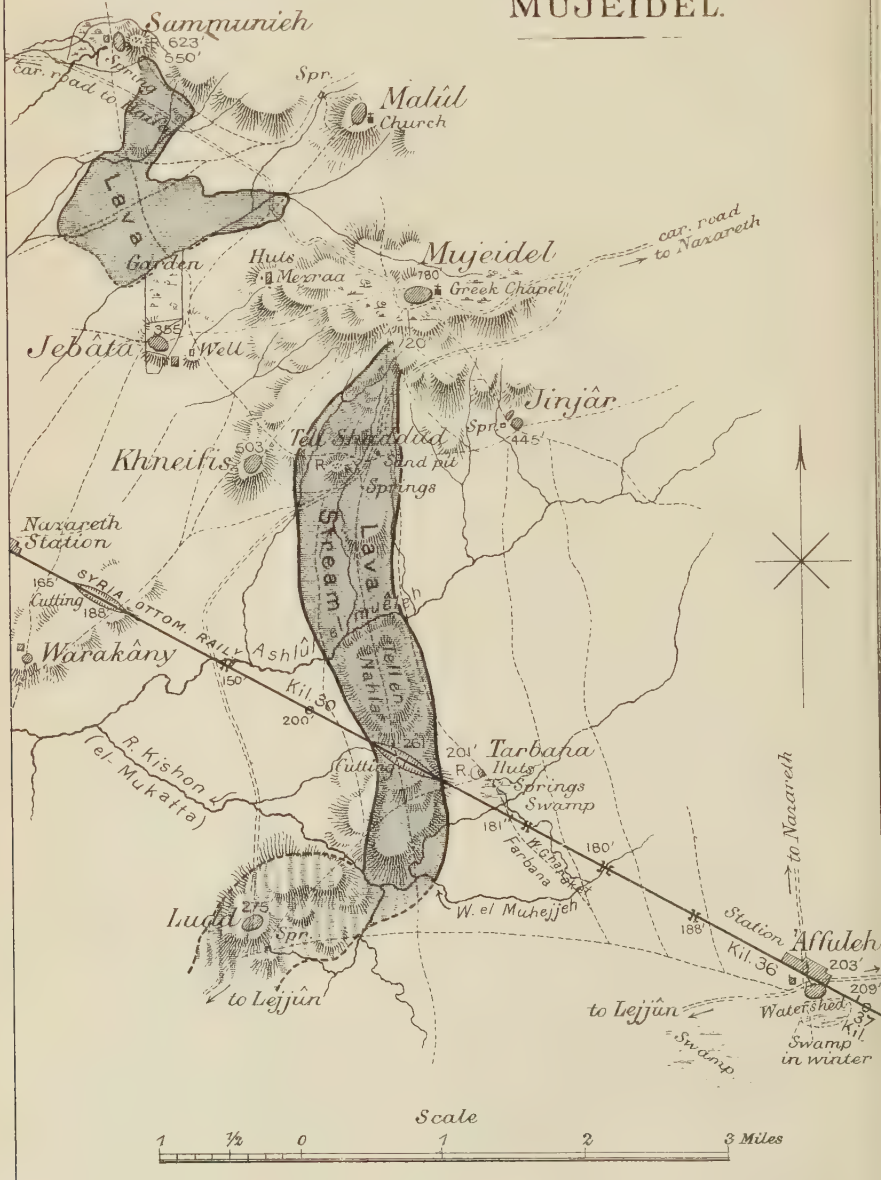
On the site of an ancient church, 200 yards north-west of the Jâlûd Bridge above mentioned, the nave and pillars of which can still be traced, the round upper part of a well-preserved niche was excavated. The shape of the stone into which the niche is hewn is octagonal, the width of the niche 2 feet 9½ inches; a carefully carved raised Maltese cross decorates the cupola of the niche, which is also made of 'Ajlûn marble.

← - - - - - - 2 feet 9½ inches. - - - - - - →

The old Jâlûd Bridge itself is being rebuilt by the active Mudir of Beisân, and a carriage road has been made by His Excellency leading from the bridge to the town of Beisân and thence down the slopes of the Jordan valley to the village el-Hakeimîyeh, near Wâdy 'Esh-sheh. On June 2nd I drove in a carriage with my family down to within 400 yards of the Jordan River, near the ford Makhâdet 'ain es Sôda, following this road to Hakeimîyeh. I mention the fact, as it is the first carriage in modern days that reached the shores of the Jordan of Galilee south of Tiberias.

The town of Beisân is rapidly increasing in population; the main market street is well kept and shaded by acacia trees; modern natives' stores and grain magazines are being built. Beisân will very soon become the mercantile centre of the Jordan valley products and the neighbouring plain of Jâlûd, as well as of Central 'Ajlûn, the main roads of 'Ajlûn being diverted by the skill of the present Mudir from the old "gathering place," Jisr el-Mejâmi'a, to a new bridge in course of construction, crossing the Jordan over against Beisân, a little south of the present ford, Makhadet er-Rummâneh.

SKETCH OF THE LAVA STREAMS IN THE VICINITY OF MUJEIDEL.



P.S. The heights in feet along the Ry. Line are Ground Levels of the Ry. Longit^l. Section.

N. G. Schumacher
10. 6. 1900

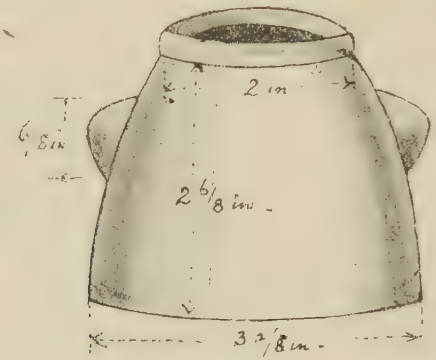
ames Akerman, 6, Queen Square W.C.

The Lava Streams of the Plain of Esdraelon.

In my last report of June 5th, 1899 (*Quarterly Statement*, 1899, p. 341), I mentioned the discovery of a bed of lava (basalt) while making the railway cutting through Tell en-Nahla, in the Merj Ibn 'Amir. In searching for sand along the wâdies on the Mujeidil hill sides, we discovered another outburst of basaltic lava close to the springs and ruins of Tell Shadûd, and have been able to trace it uphill to a point 60 feet below the level of the village of Mujeidil; here it suddenly appears on the surface of the ground, and runs down the slope in a width of 500 to 1,000 yards, embracing Tell Shadûd, forming Tell en-Nahla, and continuing to the bed of the Kishon. Here the distinct traces end, but the elevation on which the village Ludd is built again shows lava *débris*, and it may therefore be safely stated that this lava stream commenced (*see Quarterly Statement*, 1899, p. 342) as an upheaval at the foot of Tell Semûnieh, on an altitude of about 550 feet, spread towards Mujeidil, ended at the northern slope of the town hill, and took a general direction towards Jebâta, disappearing north of the village. It appears again on the surface of the ground near Abu Shûsheh, on the southern border of the great plain. Another branch of the same lava stream appears first on the other or southern side of the Mujeidil slopes, 720 feet above the sea, runs, *viâ* Tarbanch and Tell en-Nahla, to Ludd, disappears there, and can again be traced on the southern border of Merj Ibn 'Amir, between el-Lejjûn and Ezbûba. I prepared and add a sketch map of this lava stream as it shows in the vicinity of Mujeidil. My supposition that the central part of the plain of Esdraelon was once filled with a lava stream has thus been confirmed.

In digging for sand on the slopes near Tell Shadûd, the workmen found embedded in a lump of earth in the pit sunk into the very crumbling mass of lava a small marble cup, $2\frac{3}{8}$ inches high, $3\frac{2}{5}$ inches in diameter, $\frac{3}{8}$ inch thick, 2 feet below the surface of the lava. The cup was not broken, but the crust surrounding it consisted of a hard burnt clay, soft on the outside. As the cup was beyond doubt found in the lava, it seems to me that the lava stream took place in historical times, and carried away with it a piece of manufacture of an early period. This period must be previous to Hadrian, as we found graves *cut into* the basalt

rock at Tell en-Nahla containing a Hadrian coin. The cup may be Phoenician.



In preparing the above sketch map I find that I must add a few notes with regard to the following two villages, which, since the Palestine Exploration Fund map was prepared, have been built up from desolate ruins to flourishing villages :—

(1) Ikhneifis—village of 52 huts and about 230 inhabitants, the property of Messrs. Sursock, of Beirût.

(2) Ludd—village of 46 huts and about 200 inhabitants, built up by the Bedouin of the Merj.

The village of Semûnieh, on the Nazareth-Haifa road, has not increased owing to its unhealthy position and bad water. Jebâta has grown considerably. The proprietor, Sursock, built a number of dwellings covered with tile roofs, cleaned the well on the eastern slope and lined it with masonry. Three-quarters of a mile north-east of Jebâta a few huts have been erected by a villager of Mujeidil. Large olive and mulberry gardens have been planted around Jebâta. Junjâr has increased a little; it numbers now 16 huts and about 70 inhabitants. Tarbaneh contains a few huts built by the railway company for their workmen, which, later on, will be used permanently by the villagers of Mujeidil. Kitchen gardens are planted in the swamps formed by the 'Ayûn Tarbaneh. The swamp produces the worst malarial fevers known in the neighbourhood; nine of our Italian and Egyptian railway workmen died from the effects of the Tarbaneh malaria. Warakâny consists of two quarters, both in a state of decay owing to the poverty of the proprietors; the 55 or 60 villagers live in 15 to 18

miserable huts and stables, and suffer from fever, their only water supply being from the water gathered in the bed of the Kishon south of the village. 'Affûleh has not increased; the village counts 50 to 55 huts and 200 inhabitants; they also suffer from fever, especially after an abundant rainfall, owing to the "Birket" close to the village on the south, which contains stagnant water up to the end of summer. Sursock's grain store north of the village, and the garden surrounding it, have not been improved lately. Bîr esh Shallaf, mentioned in the Palestine Exploration Fund map, exists no more. 'Affûleh (not 'Afûleh, as it is written with a sheddy on the "f," عفّولة) takes its water supply from the "Birket" and the marshy springs near Fûleh.

A series of levels is given on the accompanying map following the railway line, which will have two stations on this section, one near Warakâny for the Nazareth traffic, and another at 'Affûleh on the Nazareth-Jerusalem high road. The watershed between the sea and the Jordan, where crossed by the railway line, has an altitude of 209 feet above the Mediterranean.

Kefr Lâm.

In a sepulchral cave near this Crusading castle (on the sea coast north of 'Athlît) a small, red pottery jar 6½ inches high was dug up by the natives, bearing the following letters: MCLIV.

The pottery is crumbling, but the letters are distinctly carved. If they represent the date 1154, they fix the time of the Crusading occupation of the place.

A handful of coins of John Hyrcanus, and a few Herodian coins were found last month at Kefr es-Sâmir, a ruin at the foot of Mount Carmel, on the sea coast a little south of Haifa, while

digging for ancient building stones, which are found in great number and of good size on this important site.

Haifa.

A new lot of sepulchral caves were opened in the dunes close to the German Colony on the west, hewn out of the sandstone rock, but the native discoverers have not been allowed to proceed. On the vertical side of one of them I copied the following character, 8 inches high, probably Phoenician, cut into the rock :—

Tell el-Kurdâneh.

On my recent visit to this place I collected the following Phoenician (?) characters from the walls of the modern mill, built up amidst the springs of Kurdâneh, the source of the ancient Belus near 'Akka :—

As on other stones, crosses are found, the vaulted building with

gun holes must have been a fortified place of Phoenician origin,

rebuilt in Christian, probably Crusading, days. The cross vault has been lately restored.

Haifa, *June 8th*, 1900.

ROCK-HEWN VATS NEAR BÎR EYÛB.

By the Rev. J. E. Hanauer.

About ten days ago I wrote to announce the unexpected and accidental discovery of a large number of very ancient rock-hewn vats cut into terraces or rock-ledges, distant about 30 yards, certainly not more, from Bîr Eyûb. Mr. Charles Hornstein has very kindly furnished me with the accompanying photograph of some of these, and I have written the words "TOP BUSHES" and "VATS," &c., in order to enable you to distinguish between

View of the Vats.

them. The remains cover a large extent of rock, over 100 feet long, as ascertained by Dr. Selah Merrill. In my last letter I remarked that I believed these vestiges to mark the site of the ancient fulling works which, as far back as the time of Joshua, gave a name to the old well-fountain close by, which Jewish and also Christian traditions consider to be En Rogel. I am the more convinced that this is the case by finding that one at least of these vats is exactly of the same shape as are the Egyptian

fullers' vats drawn in profile in Smith's "Bible Dictionary" (vol. i, edition 1863, p. 637, article "Fuller"). As I have not succeeded in finding any reference to these remains in any work I have access to, and as even Professor Clermont-Ganneau does not speak of them in his "Archæological Researches," I venture to think that hitherto they have remained unnoticed. In the middle of the photograph and near its lower edge, on the pathway leading along the valley, is seen the entrance to what the peasantry say is a large cave now full of "*red*" earth, though it was in former times the dwelling-place of "our lord Job, who suffered from boils and sat upon a dung-hill." Amongst other native legends concerning him is that which makes, *not the patriarch, but his wife*, the model of patient suffering:—"Job's good-wife, whose name was Rahmeh (*i.e.*, 'mercy'), went about begging from door to door for seven long years, all the while carrying her ulcer-covered, evil-smelling, moaning and groaning husband on her back in an 'abba. One day Iblis tried to persuade her to worship him, and promised that if she did so he would cure her husband and restore all the property they had lost. On being told of the fiend's suggestion, Job became so angry that he vowed that, in case he recovered, he would give his wife a hundred lashes because she had mentioned so wicked a proposal to him. Allah hereupon restored the patriarch to health and wealth, and made his wife so young and beautiful again that after his recovery she bore him 26 sons. Job was very sorry because of his rash vow, and did not like the idea of rewarding his loving and patient spouse by giving her the beating he had sworn to inflict. Allah, however, showed him a way out of the difficulty by bidding him give Rahmeh a single stroke (which we trust was a light one) with a palm-leaf containing 100 fronds."

But to return to the subject of En Rogel. We are told in Smith's "Dictionary," and also by Rabbi Schwarz ("Das Heilige Land," p. 190, Frankfort, 1852) and others, that the name is commonly given in the Targumim and the Arabic and Syrian versions as "the spring of the fuller," Rogel being derived from *Ragal*, to tread, because in ancient times washing and fulling clothes, &c., were generally done by treading with the feet (*see* also article "Fullo" in Smith's "Dictionary of Roman and Greek Antiquities"). The tradition identifying Bîr Eyûb with En Rogel is, in Smith's "Bible Dictionary," attributed to Brocardus, whose

work dates from about A.D. 1283, though, as a matter of fact, Saâdiah Gaon (died A.D. 942) gives in his Arabic translation the name "Bir Yuab" as the equivalent for En Rogel. I have already referred to the agreement of Jewish and Christian tradition on this point. The date of the "Itinerary of Uri of Biel" (*see* Smith's "Bible Dictionary") I do not know. He is asserted also to mention "the Well of Joab." The first, apparently, to cast doubts upon the generally-accepted tradition was Dr. Bonar, who visited Jerusalem half a century ago, long before Professor Clermont-Ganneau made his brilliant discovery of the stone Zoheleth at the rock still called "Ez Zahweileh," and also before it had been ascertained that Gihon and the present "Virgin's Fount" are identical. Bonar's objections are stated at length in Smith's "Bible Dictionary," and are ably refuted, point by point, by the Rev. Professor Wolcott, D.D., in the American edition (Hurd and Houghton, New York, 1872), which is much more valuable than the English one of 1863. The only one of Bonar's arguments which seems to me to have any force is the statement that "the Bir Eyûb is a well (Bir), and not a spring (En) = 'Ain. The fact is, as Dr. Wolcott points out, that it is both an 'Ain and a Bir." In this it resembles Hagar's Fountain (Gen. xvi, 7, 14). This fact, coupled with another, viz., that "the Well of Sirah" (2 Sam. iii, 26), is in reality an 'Ain, and not a Bir or Bor, proves that Bonar laid too much emphasis on the different significations of "well" and "spring."

I would further take the liberty of pointing out that if we consider Adonijah's sacrifice to have taken place *quite close* to Ez Zahweileh, the whole narrative becomes difficult to understand, for Ez Zahweileh is little over 100 yards distant from, and in full view of, the Virgin's Fount or Gihon, and if Adonijah and his guests were at Ez Zahweileh it is incomprehensible that he should need to be told the cause of the noise heard coming from Gihon. Josephus and the Revised English Version of the Bible lead us to infer that the conspirators were not at the stone Zoheleth itself, but in the royal gardens "beside"—that is, *towards* En Rogel or Bîr Eyûb (Josephus, "Antiq.," VII, xiv, 4, Whiston, compared with 1 Kings, i, 9, &c.). It will be noticed that Josephus is very careful to distinguish between "*the fountain called Gihon*" and "*the fountain that was in the king's paradise.*" He places the scene of Adonijah's feast not at but "*near*" the

latter—that is, En Rogel or Bîr Eyûb. But it was also "near" the stone Zoheleth or Ez Zahweileh, which is from 1,600 to 1,700 feet distant from Bîr Eyûb, and therefore, if we consider it to have been about midway between the two sites, we find a location perfectly adapted to the story, near enough to Gihon for the sound of the rejoicings to be distinctly heard, and yet just out of sight because of the turn of the valley.

I would, in conclusion, suggest that the recent find of rock-cut vats, which a native told me were old مَغَاسِل or "lavatories," differing altogether in shape and arrangement, as well as size, from those found in connection with ancient oil and wine presses in this country, and in close proximity to Bîr Eyûb, vindicates the correctness of the tradition identifying that ancient well with En Rogel.

JERUSALEM, *June 9th*, 1900.

NOTE BY THE HON. DR. SELAH MERRILL.

(1) If this was an old find it has certainly escaped the knowledge of any person now in Jerusalem, and the credit of its recovery is due to Mr. Hanauer. If it is a new find it only illustrates what has long been known—that Mr. Hanauer is a keen observer and always on the alert for facts of interest in the field of Biblical discovery.

(2) There were a large number of vats, and we are still able to count between 30 and 50.

(3) The rock was not hewn for the purpose, but its natural shape was such that it was easily divided into two rough platforms, the lowest being reached by six, or possibly ten, rock-cut steps from the path along the valley. The second platform was higher and somewhat to the right (looking from Bîr Eyûb) of the other, reached by five or six steps from the first platform. These two short flights of stairs or steps went up sidewise or parallel to the platforms, and should be so represented, since traces of them remain. The two platforms are distinctly traceable, although the rock has been broken or worn away and many of the vats destroyed. The vats do not appear to have been confined to the platforms. Above the second or highest platform there was a short flight of rock-cut steps, leading up the hill. This

third flight may have often been observed, they are well seen in the picture, and it may have been thought that they led from the hill down to the well or Bîr Eyûb, and no further notice been taken of them.

(4) In my judgment the supply of water has much to do with the question whether this was a fuller's "plant" or not. No doubt the supply of water at the Virgin's Fountain was always limited and the demand great; but was there sufficient for the ordinary demands and for the needs of an extensive fuller's establishment besides? In Bîr Eyûb the fuller had within 100 feet of his vats a supply of water that was ample and never failing.

If I wished to go into the fulling business in Jerusalem in the old style, I should not go *north* of the city, where there is no water, or *west* of the city at "Upper Gihon," where the water disappears after May, but I should go south-east of the city and buy up Bir Eyûb and the rock adjacent, clean out these old vats, and go to work. Abundance of water, rock-hewn vats, a large rock surface where cloth could be spread for drying—all grouped together.

THE DEAD SEA.

By Major-General Sir Charles Wilson, K.C.B., &c.

In the last *Quarterly Statement* Mr. Gray Hill has raised an interesting question with regard to the surface level of the Dead Sea. In May last the level was higher than it has been for several years, and Mr. Gray Hill asks whether it is "possible that there is some volcanic action at work raising the bed of the lake?"

There are no traces of recent volcanic action in the vicinity of the lake, nor of any terrestrial movement of elevation or depression that would affect the level of its waters. It is, however, well known that the surface level of the lake rises and falls during the course of each year, and the difference of level has been estimated at from 6 to 15 feet. It is also probable that there are prolonged periods of high and low level following a succession of wet and dry years. The phenomena noticed by Mr. Gray Hill are apparently due to the excessive rainfall of the last 10 years.

Meteorological observations have been taken at Jerusalem since 1861, and the rainfall for 32 years (1861–92) has been tabulated by Mr. Glaisher in the *Quarterly Statement* for 1894. The results for the seven years, 1893–99, have been published in later volumes. The figures in the tables are for the whole year, January to December, and not for the rainy season, November to April, but they are sufficient for the present purpose. The lowest rainfall, 13·39 inches, was in 1870, the highest, 41·62 inches, in 1897. The average of the 32 years, 1861–92, was 25·23 inches; for the seven years, 1893–99, 29·92 inches; and for the last 10 years, 1890–99, 31·09 inches, or 5·86 inches above the 32-year average. June, July, August, and September are practically rainless months; the average for May is 0·27 inch, and for October 0·41 inch. The wet months are January, average 6·38 inches, December 5·50 inches, February 5·06 inches, March 3·56 inches, November 2·29 inches, April 1·71 inches. From the above it would appear that the three months during which the rain is heaviest are December, January, and February; that there has been an excessive rainfall during the last 10 years, and that the rainfall of 1897 was exceptionally large.

The rainfall of the Jordan Valley is much less than that of the hill-country to the east and west; but the Jerusalem statistics give a fair indication of wet and dry years in the Jordan–Dead Sea catchment basin, and of the relative amount of water which must find its way each year to the Dead Sea. When the great extent of the catchment basin (between 17,000 and 18,000 square miles) and the limited extent of the Dead Sea (about 340 square miles) are considered, it is easy to realise that a succession of rainy years would cause a very appreciable rise in the level of the lake. It may also be remarked that a rise of 3 or 4 feet would make a very marked change in the form and appearance of the northern and southern ends of the lake. The level of the water is practically regulated by the rainfall and the evaporation. If more water is supplied than the evaporation can carry off the surface of the lake will rise; but should the evaporation be greater than the supply the lake will shrink. In winter the evaporation is least and the supply greatest; in summer these conditions are reversed. During a very rainy winter, with its many cloudy days without rain, there would be little evaporation, and a more than usually large supply of water. Unfortunately there is no definite infor-

mation with regard to the level of the lake at different periods of the year, and we are unable to compare the rise and fall with the rainfall of any particular month or of any particular year. Nor do we know how far the Sea of Galilee acts as a regulator of the supply; whether the water of the Dead Sea is liable to any movements from the different barometric conditions which probably exist at the northern and southern ends of the lake at certain times of the year, or whether the silt brought down by the Jordan has altered the shore line near the mouth of the river since the last soundings and surveys were made.

The Dead Sea derives its principal supply of water from the Jordan, but a very appreciable addition is made by the streams of Moab and Edom, and during the rainy season by the winter torrents on the west and south. The daily contribution from all sources has been roughly estimated at over 6,000,000 tons of water, and the daily evaporation at about half an inch. There is a prevalent, but erroneous, belief that the swelling of Jordan, when most water is poured into the lake, is due to the melting of the snow on Lebanon. It is principally caused by the rainfall over its large catchment basin. Its waters begin to rise towards the end of December, and overflow the banks of the Zor, or trough, in which they flow in January and February. They would then fall rapidly if the melting snow added to the lighter March rains did not keep them at a comparatively high level during that month and part of April. After heavy rain the Jordan has been known to rise 4 or 5 feet in 12 hours, and to fall as rapidly. Taking everything into consideration, it seems probable that the level of the Dead Sea is highest early in March and lowest in November.

The following remarks of travellers may now be noted:— Before the commencement of the Jerusalem observations in 1861, Irby and Mangles in June, 1818, found "high-water mark a mile distant from the water's edge" on the neck of the Lisân. In May, 1838, Robinson found a bank of shingle, near Engedi, 6 or 8 feet high, which bore marks of having been covered by water; and in the same month he infers, from drift-wood in the southern part of the lake, that the level had been 10 to 15 feet higher than it then was. On April 22nd, 1848, Lynch says the water had already fallen 7 feet that season; and Dr. Anderson, the geologist of the American Expedition, writes that there was drift-wood three miles from the south end of the lake, and he conjectures

that the water occasionally extended eight or ten miles south of its then position, covering the flat plain. In September, 1858, after a very hot year, Sir George Grove saw drift-wood 10 or 12 feet above the then level of the sea. He also says that the island at the north end, Rujm el-Bahr, was 10 or 12 feet out of water and connected with the shore by a narrow causeway 100 yards long. He adds that the isthmus is concealed when the water is at its full height.

On the 12th March, 1865, after a hot summer and a dry winter (8·8 inches below the average), I found the level of the lake to be 1,292·13 feet below the Mediterranean, and that the water had already fallen 2½ feet. I estimated that there would be a further fall of 6 feet from information given by the Bedawin. I had to swim out to the island mentioned by Sir George Grove, which was then about 3 feet above the water. Since 1863 the island appears to have been seen by travellers until 1892, when it is said to have disappeared. This disappearance took place during the third year of the heavy rainfall period which commenced in 1890 (the average for the three years, 1890–92, was 8·6 inches above the 32-year average). Last year the rainfall was only 17·1 inches, or 8·1 inches below the average, but this failure would not be sufficient to counteract the excess from the floods of 1897, and the heavy rain of previous years.

The subject is of so much interest that I hope steps may be taken to obtain observations of the level of the Sea of Galilee and of the Dead Sea at different periods of the year. There should be no difficulty in the case of the Sea of Galilee, where there is a settled population. In the case of the Dead Sea I would suggest that a mark be cut on the rocks near 'Ain Feshka, or at some convenient point, at a measured height of 8 or 10 feet above the level of the water on November 1st, when it is at its lowest, and that the level of the water with reference to this mark be measured at the end of each month of the rainy season. I would also suggest that travellers be asked to send to the Fund notes on the level of the lake with reference to the drift-wood which marks the high-water line, and the dates of their visits. I hope, too, that the boats on the Lower Jordan may be utilised for making soundings, and for barometric observations at different points on the shore of the lake.

Note by Sir Charles Warren.

I quite agree with this paper, and though I think there is volcanic action at work about the lake, I do not think that it affects the annual variation of level of the surface of the Dead Sea, which I attribute to the varying amount of rainfall or snow balanced by evaporation from the surface of the water.

SPORT AMONG THE BEDAWÎN.

By W. E. Jennings-Bramley, Esq.

Every Bedawi is a sportsman both from taste and necessity. A day after gazelle, ibex, or hare means not only a day's keen enjoyment, but a possible change in the monotonous daily diet of bread and water which, except on rare occasions such as a festival or the treating of guests, must be his.

The sport of Sinai *par excellence* is ibex hunting. The ibex, called by the Bedawîn Jatel, or more locally Seid (male, Beden), is found on almost all the hills of Sinai. High hills, such as Jebel Ruram, Jebel el-Haisie, or the hills of Kadus, lying furthest off the caravan roads, afford the best sport.

Every Bedawi is a sportsman at heart, as I have said, but some can only take a day when travelling to and from neighbouring towns to fetch the necessary provision of corn, whilst others make ibex hunting their business. The latter are generally members of large families, who can spare them and provide meal for the tent, usually men who, having better rifles than the rest—a Remington, perhaps, or a Martini—are better equipped for the purpose.

Ibex are sometimes stalked and shot from behind stone butts raised for the purpose near water or close to feeding grounds; but the usual way is to hunt them with dogs—a breed called Dirra, originally, I believe, a cross between the greyhound, Slooge, and the pariah dog. Two of these are taken by the huntsman and, as soon as the ibex is seen, let loose. They chase it up to some peak, where the huntsman can follow until near enough to get a certain shot.

Young ibex and gazelle a few days old are followed up by the spoor and easily caught, for during the day the females leave their young curled up in spots in which it is easy enough to catch them when you have tracked them down. The full-grown gazelle is always stalked, the hunter crawling from bush to bush until he is near enough to shoot them with a shot-gun. Sometimes, but not often, the gazelles are driven towards a preconcerted spot.

Hare, which abound in Sinai, are generally shot when asleep under a bush—an Arab's eyes are wonderful in discovering them. Any little bush affords shade enough for a form, and a hare once asleep will allow you to approach to within a very short distance. This year I saw a hare caught in a manner which was quite novel to me. I was walking along one morning with my man Salem, when he told me that he had seen a hare a minute before, and it was on the side of the hill. "I shall call Hameed," he said, "and catch it." While waiting for Hameed, who was some little way behind with the camels, he busied himself breaking off several long branches of rattan (? rethem), twisting back the spines and tying them round until they looked like small brooms. Of these brooms he made six; then Hameed having come up, was given three, the other man keeping three. The camels were turned loose, and I took my gun in case their method of catching the hare should not be successful, although they never doubted it would be. The two men thereupon started walking hand-in-hand towards the hare, stepping high and with infinite care to make no noise. Suddenly I saw them throw the twigs they held one after another, and then Salem flung himself down and in a second or two jumped up hare in hand. They then explained to me the stratagem. Hares, they told me, often sleep near jutting-out rocks, so that in case of being attacked by birds of prey they may creep under the rock for protection. When the twigs are thrown beside it, the first instinct of the hare, starting out of its sleep, is to seek safety under the rock. The twigs imitate in a way the sound of a striking hawk rushing through the air, and the man, throwing himself over the spot, easily catches it. It was on this occasion I first ate hare cooked in its skin, the receipt for which most excellent dish I have given elsewhere.

Hawking is another very favourite Arab sport, but, from personal experience, I can only speak of the methods employed

by the Western Arabs. I have been told by an old Arab sent to Syria by Haleem Pasha, that the only noticeable differences between Western and Eastern—Magharba and Misherga—are these: that the latter name each bird as they would their Sellaig or gazelle hounds, and that they use the Baas (goshawk), which is very rarely seen in Egypt.

The native names of the hawks and the game each variety hunts are as follows:—

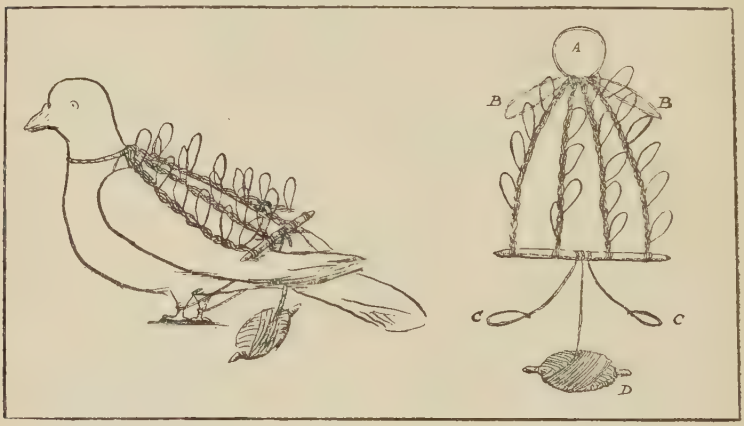
Saker ♀	سقر الحُرّ	*Sagger el Hur* ..	Gazelle and hare.
Saker ♂	زوزوری	*Zoozoori*	Hare.
Peregrine ♀ ..	شاهینیه	*Shaheenie*, if in its first year's plumage, brown ..	The peregrine, which by nature prefers winged game, is mostly used for hare by the Arabs, but occasionally it is trained, as with us, for duck.
	فرخ شاهین	*Farh-Shaheen* if in blue plumage..	
	طینی	*Tini*	
Peregrine ♂ ..	قرق	*Karak*	
Barbary falcon (classed by Arabs as Black Peregrine)	قطریه	*Cotrea.*	
Lanner ♀		*Farha* or *Farha Gush*	The female, if a fine bird, is used for hare.
Lanner ♂	طرشون	*Tarashone* ..	Rarely caught unless by accident. Is let loose or used to trap the Saker.
Sparrow-hawk ..	بشیق	*Básheek*	Quail.

The only species I have found nesting in the country is the lanner. I have been told that peregrine nest also there, but I believe this can be but rarely, as they are birds of passage, arriving in September or thereabouts and leaving by March.

The Arabs have different methods of catching the birds they require for training. To catch the saker, for instance, a peregrine ♂ or lanner ♂ is taken and its eyes sewn up. Then a bundle of nooses, horsehair, and feathers is attached to one of its legs, and the falconer carries it off to wherever he may have seen a saker falcon. He may be pretty sure of finding the bird he is looking for if he has marked the spot, for the saker generally remains

about the same place for some time, usually choosing open ground with small bushes, as its principal food is desert rats. Once the falconer has marked the saker he wishes to catch, sitting perhaps on some mound, he approaches it diagonally, and when close to it throws up the bird he carries, which, although blinded for the time, will fly some distance. Generally the saker, taking what he sees in the other bird's claws to be food, chases it and grabs at the bundle of snares and feathers, when his claws get entangled, and after a struggle the two birds come tumbling down to the ground together.

Another favourite way of catching both peregrine and lanner is the following:—The falconer chooses a strong pigeon and a



Pigeon with saddle on its back. Saddle.

good flyer. This bird is saddled with a snare, made by the falconer, which will be better understood by reference to the accompanying illustration. It is made with four plaits of twine into which many nooses of horsehair are fastened. These four plaits are attached at one end to a sharp straight bit of wood, which keeps them apart at the proper distance, and at the other to a loop, through which the pigeon's head is passed. B are the loops for the wings of the pigeon. A and B hold the snare in position on the pigeon's back. There are also two strings, C, with loops, which are passed round the pigeon's legs. The ball of string, D, is attached to the piece of wood and unwinds as soon as the pigeon begins to fly. The falconer, pigeon in hand, gradually approaches

the peregrine or lanner, getting as close to it as he thinks possible without frightening it. He then throws up the pigeon, which, after flying a little distance, comes down weighted by the ball of string that, partly unwound, is bobbing on the ground after it. The hawk strikes the pigeon, entangles his claws in the horsehair nooses on the saddle, and is easily caught. I have found this very successful.

Sometimes the falconer, having found out the roosting place of a peregrine, generally the branch of a palm tree, will attach thereto a long line of nooses, running from one end to the other of the branch. Birds are sometimes caught in this way.

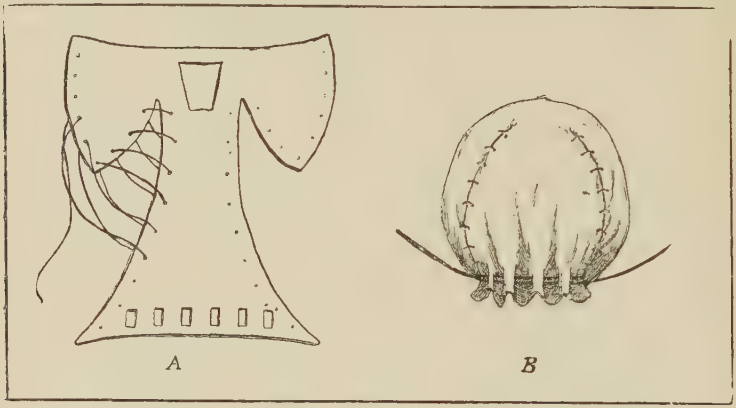
For the Bâsheek or Sparrow-hawk a quite different method is employed. A very fine net, such as those used for casting by fishermen, is dyed green. This the falconer stretches between two rows of lemon trees in some lemon grove in which he has seen a sparrow-hawk sheltering during the heat of the day—a very common habit of sparrow-hawks. The net is stretched from the ground upwards to about the height of a man, as the sparrow-hawk almost always when disturbed drops off the branch on which it has been perching and flies along the ground. Once the falconer has put up the net, which he does *behind* the bird, he makes a wide circle and, approaching from the other side, walks straight down the avenue with his face towards the bird, and the net which is behind it. If the bird behaves as he expects, and it does very often, it flies away from him and into the net, in which it gets sufficiently entangled to allow him to come up and catch it.

The Bedawin methods for training hawks are not precisely the same as the European. The hood they use is not unlike the Dutch hood, but it is made of soft leather sufficiently wide to pass easily over the bird's head. When once on it is drawn together at the back by two thin thongs passed in and out of the leather instead of having a V-shaped slit at the back drawn together with straps. The illustrations show this clearly. The swivels to which the jesses are attached are very roughly made of wood. The jess is generally plaited camels' hair, with just a piece of leather round the bird's leg.

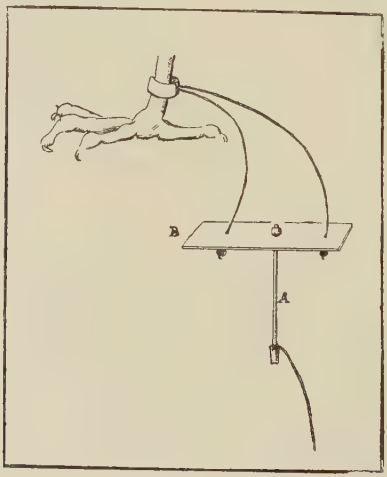
Bells would be of no use in the desert, so none are used; but when after quail, which generally rise out of standing crops, a length of thread, at the end of which is tied a blob of cotton, is

attached to the hawk's leg. This answers the purpose of bell by showing where the bird is.

The main difference in the actual training is that with the Arabs the hawk is always flown from the wrist, and never taught



A. Arab hood when laid out flat. B. Hood drawn together.



JESSES.—A is a stick passed through the hole in B. The jesses are passed through holes in B and tied in knots underneath.

to wait on. The Arab sews up the eyes of the hawk by first passing a needle and thread of cotton through the lower eyelids and drawing them up so as to close the eyes and then tying them

together. He leaves them thus for three days, during which time he continually hoods and unhoods the bird and handles it generally, going through, in fact, very much the same practice as with the Roofter hood in Europe. Once the hawk has quieted down, he cuts the thread and spits into its eyes, the saliva allaying, they say, any irritation that may have been caused by the threads —irritation which often causes matter to form and swells up the eyelids. Imping, which is done with a lemon spill and string, is necessarily very rough compared to the work done with proper needles. The falconer now continues for some days perpetually hooding and unhooding until the bird is quite broken in to the lure. Should a saker be in course of training, the falconer will now catch a very young gazelle, and attach either to its head or quarters, according to the spot the hawk is to strike, a piece of meat. This is done because in gazelle hunting two birds are always required, and each must be trained to strike in a different part of the animal, or much confusion, some fighting between the two falcons, and probably the escape of the gazelle would ensue. Therefore it is most important that each bird should be trained for just the work it has to do. Once the saker is thoroughly accustomed to feeding on the gazelle's head, say, he is flown from a distance in the same way as at the lure. The next step is to kill the gazelle after they have flown at it.

One important point is that the falcons to be used for gazelle hunting should have their blocks placed near the spot where the sellage or gazelle hounds are kept, as the birds must get accustomed to the dogs. When once sufficiently trained, hawks and hounds are taken out into the desert, and on sighting the gazelle the sakers are cast off and the gazelle hounds loosed almost at once, the huntsman, if he is wise, not moving until the hawks have seized their prey, when he can gallop up. If he move before, the gazelle will take alarm before the hawk has seized it.

Hounds are not necessary in hare hunting, but may be useful in helping the hawk until the huntsman can come up.

The best method of training hawks for hare hunting, the easiest game to train them for, is to set them on a rabbit covered with a hare skin, which protects the rabbit from the claws of the bird. The bastick and sparrow-hawk can be trained for sport, but Arabs do not often use them. These hawks must always be thrown, and this is difficult to do well, and if not done well is sure

to spoil the chance of a catch. Yet a skilful thrower may easily get a bag of from 30 to 40 quail with one of these hawks.

A saker is considered past work and let loose at the end of its fourth season. The Arabs say that by that time the plumage has become too thin to serve it in flying properly. The peregrine is only kept one season, and is of no value unless in the first year's brown plumage.

NOTE ON THE GREEK INSCRIPTIONS FOUND AT TELL SANDAHANNAH.

By Professor Sayce, LL.D.

The fragmentary Greek inscriptions discovered by Dr. Bliss are certainly charms and incantations, like those in fantastic characters found by him on the same spot. On one of them we have the words *σωτηρίαν καὶ τοὺς θε[οὺς] ἐνκαταλίπιν* (for *ἐγκαταλείπειν*); on another is the name of Demetrios.

The jar-handle with the name of Benaiah (B-n-y-h-u) [A]zariah ([E-]z-r-y-h-u) is interesting. The number of double names which occur on the jar-handles and seals of the early Jewish period is curious. It points to the modern Arab custom of transforming the name of a man's father into a surname, Mustafa 'Ali, for example, being "Mustafa, the son of 'Ali." Similarly Benaiah Azariah will be "Benaiah, the son of Azariah." But why is it that the custom is ignored in the Old Testament?

THE ROCK-CUT TOMBS IN WÂDY ER-RABÂBI, JERUSALEM.

By R. A. Stewart Macalister, M.A.

The concluding portion of this paper will be presented in the next number of the *Quarterly Statement*. The proof sheets of the first portion were lost in the post, and in consequence the following serious misprints appear in it uncorrected:—

PAGE	LINE	FOR	READ
225	10 from bottom.	"acknowledgments ... for making ... measurements."	"acknowledgments ... for help in making ... measurements.
229	10	ΟΕΚΛΑ	ΘΕΚΛΑ
230	28	*διάφέρον*	*διάφερον*
231	12	Μμῆμα	*μνῆμα*
231	13	*θυρόρων*	*θυρορῶν* (*sic*)
234	1	*πατριάχου*	*πατριάρχου*
234	6	*ἄμα*	*ἅμα*
234	22	anacolouthon	anacolouthon
234	22 and 30	*Εὔγηνος*	*Εὔγηνος*
234	38	*τῆ*	*τῇ*
238	4 above cut	*μοναστηριὸυ*	*μοναστηριου*
238	3 above cut	*Γεοργιόυ*	*Γεοργίου* (*sic*).
239	6	Ou er-Rabâbi	Ou. er-Rabâbi
241	10	*θείσα*	*θεῖσα*

Also on p. 222, transfer the "[2]," referring to the second footnote, *from* after "date," line five from commencement of article, *to* after "only," two lines further on.

THE MONASTIC CEMETERIES OF THE WÂDY ER-RABÂBI.

By Professor Clermont-Ganneau, LL.D.

I believe it is possible to draw a further, and somewhat important, conclusion from the copy of the inscription in the Wâdy er-Rabâbi, No. 13, Pl. V, pp. 236, 237, where I propose to read:—

+ *Θήκη διαφέρουσα τοῦ*
ἁγίου Σε[*ρ*]γ[*ίου*] . . . . . *το*?
ὑποσοριο . . . . . .

"Tomb belonging to the (Convent) of St. Sergius . . . the *hyposorion* . . . . ."

The word *hyposorion* does not occur in the lexicons, but it is

frequently found in funerary epitaphs, more especially in Lycia,[1] where it denotes the subterranean floor of the sepulchre in which the slaves belonging to the family were generally buried. This lower floor, perhaps, still exists uninjured in the tomb of the Wâdy er-Rabâbi.

The Convent of St. Sergius at Jerusalem is mentioned in the *Commemoratorium de Casis Dei*, the compilation of which appears to go back to the commencement of the ninth century. The same document also mentions the Convent of *Sancta Sion* and that of *Sanctus Georgius*, the names of which recur in the other inscriptions from the group of monastic cemeteries in the Wâdy er-Rabâbi. We have here a chronological indication for the whole epigraphic group, the value of which cannot be mistaken.

As regards the topographical observations made in p. 239, we should remember that the Convent of Juvenal, the position of which I have attempted to determine in a memoir referred to by the Père Lagrange and Mr. Macalister—if, indeed, it is this convent which is alluded to in the inscription—was not necessarily in the immediate neighbourhood of the tomb which belonged to it. Different convents could occupy various sites within or outside Jerusalem, while their respective cemeteries were grouped together in the same region of the Wâdy er-Rabâbi.

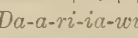
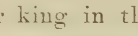
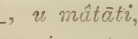
PARIS, *July 24th*, 1900.

THE COLLECTION OF BABYLONIAN TABLETS BELONGING TO JOSEPH OFFORD, ESQ.

By THEOPHILUS G. PINCHES, Esq.

SINCE the publication of my article upon these documents in the July *Quarterly Statement*, I have found that the British Museum tablet 89-10-14, 330, is a duplicate of the fourth tablet of Mr. Offord's collection, which is described and translated on pp. 264–268. To all appearance the museum tablet is either an ancient copy or a first draught of the inscription, and not the official text, as it is unprovided with the seal of the seller. There are two

[1] See, for example, the inscriptions in Le Bas and Waddington: "Voyage Archéologique," Nos. 1272, 1275, 1278, 1279, 1280, 1287, 1301, &c.

variants, namely, the addition of  , *babbanitum* or *kurbanitum*, "unblemished (?)" after *parratum akkaditum*, "Akkadian ewes," at the end of line 1, and the writing of the name of Darius,  , *Da-a-ri-ia-a-wuš* (instead of *Da-a-ri-ia-wuš*) in the last line but one. After the character for king in the last line the text is completed thus:  , *u mâtāti*, "and countries." The first of these four characters is naturally superfluous, or else it should come before the character for "king," making "king of Babylon, king of countries," or "king of Babylon and king of countries." In addition to the seal, the Aramaic docket is also wanting. The style of the writing differs slightly from that of Mr. Offord's copy, and the lines are differently divided. In a blank space are some erased jottings by the scribe.

NOTE ON THE WINGED FIGURES ON THE JAR-HANDLES DISCOVERED BY DR. BLISS.

By Joseph Offord, Esq.

With regard to Dr. Bliss's jar-handle stamps, and the four-winged symbol, the way in which these symbols get reduced to what may be called their "lowest common delineator" is very remarkable. I do not think Dr. Bliss has noted in the *Quarterly Statements* that what the symbol really expressed is a deity, and probably Baal. In the "History of Art in Sardinia, Judæa," &c., by Perrot and Chipiez, London, 1890, vol. i, p. 342, is a figure of a Jewish seal of "Baalnathan," which well illustrates this (*see* Fig. 1). In reference to it the authors remark:—"Although it was recovered in Mesopotamia, there is no doubt of its having been manufactured by a Phoenician artificer. It portrays a god with the attributes that we sometimes see about Horus, consisting of two sets of wings and a serpent in either hand. A double horn or crescent, with a central solar disc, and a snake depending on each side, are about his head, whilst near the feet the divine symbol, the

Fig. 1.

'eye of Osiris,' is repeated twice. The inscription 'Baalnathan,' whom Baal gives, *i.e.*, given by Baal, exactly corresponds with Jonathan, whom Jehovah gives, with this difference, that in the latter Iah-Jehovah, Iaveh, is replaced by Baal."

In a footnote the authors explain that the seal was the property of a Jew (perhaps of one who had forsaken the national God and had embraced the Syrian cult), because a Phoenician would have used "liathon" instead of "naathan," and have been called "Baaliāthon." They continue :—

"The[se] objects were probably tolerated on account of their characterless appearance; the form being too small to be easily read, was not deemed prejudicial to the true God; it was impressed, moreover, on clay or wax, and awoke no misgivings in the heart of the true worshippers of Jehovah. Until the reform initiated by the Prophets reached its logical conclusion, tearing up from the roots time-honoured customs and usages, figures and emblems graven on seals appeared doubtless innocuous. Many an Israelite who would have died rather than sacrifice to Moloch or Ashtoreth, elected of a dealer, without a qualm of conscience, a signet having a sphinx or winged disc exquisitely outlined, with which his name and appellations would be associated, the former being considered purely decorative."

In the British Museum there is a seal which is figured in the "Proceedings of the Biblical Archæological Society," 1882,

Fig. 2.

p. 54, respecting which the late Dr. William Wright remarks that it may belong to about the pre-exilic period, or a little later (*see* Fig. 2).

LIST OF DONATIONS AND SUBSCRIPTIONS.

FROM SEPTEMBER 23RD TO DECEMBER 26TH, 1899.

a denotes Annual Subscriber.

*** If any omission or mistake be observed in the following lists, the Secretary will be very glad to be informed of it, and will rectify the error in the next *Quarterly Statement.*

	£	*s.*	*d.*
*a*Abercrombie, Mrs.	0	10	6
*a*Adler, Marcus, Esq.	0	10	6
Adler, Marcus, Esq. (Don.) ..	0	10	6
*a*Addison, J. G., Esq.	1	1	0
*a*Aldis, Prof. W. Steadman ..	1	1	0
*a*Alford, Rev. B. H.	2	2	0
*a*Allan, Rev. Dr.	0	10	6
*a*Allen, Henry J., Esq. ..	0	10	6
*a*Allnutt, Mrs. E. J.	0	10	0
*a*Alston, J. Carfrae, Esq. ..	1	1	0
*a*Anderson, Mrs. Samuel ..	3	3	0
*a*Andrews, R. T., Esq. ..	1	0	0
*a*Argyll and the Isles, The Bishop of	1	1	0
*a*Ashby, Robt., Esq.	1	1	0
*a*Askwith, Rev. Preb. W. H. ..	1	1	0
*a*Atkinson, Miss	0	10	6
*a*Ayre, Rev. Canon	1	1	0
*a*Backhouse, W. A., Esq. ..	0	10	6
*a*Badger, Rev. W. Collins ..	0	10	6
*a*Bagshawe, W. H. G., Esq. ..	0	10	6
*a*Bagster, Robert, Esq. ..	0	10	6
*a*Bain, G. W., Esq.	0	10	6
*a*Bamlett, A. C., Esq.	0	10	6
*a*Barbour, Robert, Esq. ..	1	1	0
*a*Barclay, R. L., Esq.	1	1	0
*a*Barclay, Rev. C. W.	0	10	6
*a*Barclay, Rev. Thomas ..	1	1	0
*a*Baron, Mrs.	0	10	6
*a*Baroody, Dr. Alex.	0	10	0
	£25	2	1

	£	*s.*	*d.*
Brought forward	25	2	1
*a*Barrowman, James, Esq. ..	1	1	0
*a*Bartlett, Rev. R. E.	0	10	6
*a*Bartlett, W. C., Esq.	0	10	6
*a*Beale, J. Bewley, Esq. ..	0	10	6
*a*Beard, Henry, Esq.	1	1	0
*a*Bedwell, Rev. Canon Francis	1	1	0
*a*Bell, Henry, Esq.	1	1	0
*a*Bent, Mrs. Theodore	1	1	0
*a*Bentwich, Herbert, Esq. ..	1	1	0
*a*Benzinger, Dr. J.	0	10	6
*a*Berchem, Dr. Max Von ..	0	10	6
*a*Berkeley, Rev. C. J. R. ..	0	10	6
*a*Bevan, Rev. Philip C. ..	1	1	0
*a*Beveridge, Erskine, Esq. ..	2	0	0
*a*Bewley, F., Esq.	1	0	0
*a*Bickerton, George, Esq. ..	1	1	0
*a*Biggs, Rev. Charles	1	1	0
*a*Biggs, R., Esq.	1	1	0
*a*Birnstingl, A. L., Esq. ..	0	10	6
*a*Bishop, Henry G. C., Esq. ..	0	10	6
*a*Blackett, J. Stephens, Esq. ..	0	10	6
*a*Blair, General, V.C.	1	1	0
*a*Blake, J. C., Esq.	1	1	0
*a*Blaxland, Rev. G. C.	0	10	6
*a*Blunt, Rev. Canon	1	1	0
*a*Boddy, Rev. Alex.	0	10	6
*a*Boger, Miss M.	0	10	6
*a*Bonaparte, Son Altesse Mgr. le Prince Roland	1	1	1
	£49	2	1

	£	s.	d.
Brought forward	49	2	1
aBourcart, Terond, Esq. ..	0	10	6
aBowers, W., Esq.	0	10	6
aBoyd, John, Esq.	2	2	0
aBoyle, R. Vicars, Esq. ..	0	10	6
aBraby, Cyrus, Esq.	0	10	6
aBraithwaite, Isaac, Esq. ..	2	0	0
aBraithwaite, J. Bevan, Esq...	0	10	6
aBraithwaite, J. B., Esq. ..	1	1	0
aBramley-Moore, Rev. W. ..	1	1	0
aBramwell, W. H., Esq. ..	1	1	0
aBrandt, Miss	0	10	6
aBrasenose College, The Principal of	1	1	0
aBreeze, James S., Esq. ..	1	1	0
aBridges, Miss	1	1	0
aBridges, Rev. W. G... ..	1	0	0
aBrightman, Rev. F. E. ..	1	1	0
aBriscoe, Miss Mary Ethel ..	0	10	6
aBristol Museum	2	2	0
aBrock, The Misses	1	1	0
aBrooke, John A., Esq. ..	2	2	0
aBrown, Ed., Esq.	0	10	6
aBrown, Langton, Esq. ..	0	10	6
aBrown, Percy, Esq.	1	1	0
aBrowne, Rev. James	0	10	6
aBrowne, Robert Clayton, Esq.	1	1	0
aBrowne, Rev. C. G.	1	1	0
aBrownlow, Right Rev. W. R., Bishop of Clifton	1	11	6
aBruce, Rev. Canon	0	10	6
aBrünnow, Prof. R.	2	2	0
aBullock, Admiral C. J. ..	1	1	0
aBurton, Rev. John J. ..	1	1	0
aButcher, L. G., Esq... ..	2	0	0
aButler, James W., Esq. ..	1	1	0
aButlin, Rev. J. T.	0	10	6
aBuxton, Miss	1	1	0
aBuxton, Miss R.	2	2	0
aByrom, John R., Esq. ..	1	1	0
aCadbury, George, Esq. ..	1	1	0
aCaffin, Miss M.	0	10	0
aCarr, Henry, Esq.	1	1	0
aCaudwell, Job, Esq.	0	10	6
aCawston, Samuel, Esq. ..	1	1	0
aCave-Browne, Miss L. ..	0	10	6
aChalmers, Miss	1	0	0
aChambers, Charles D., Esq...	1	11	6
aChapman, Henry, Esq. ..	0	10	6
aCharley, Sir W. T., Q.C. ..	1	1	0
aCheere, Miss	1	0	0
aChovevi Sion Association ..	1	1	0
aChurch House, Library of ..	0	10	6
aChynoweth, Miss F.	1	1	0
aClark, James, Esq.	1	1	0
Clarkson, Rev. W. F. (Don.)	0	6	0
	£103	2	1

	£	s.	d.
Brought forward	103	2	1
aClayton, Rev. Canon.. ..	0	10	6
aClogher, Bishop of	1	1	0
aCobham, Miss..	1	1	0
aCoe, Rev. C.	0	10	6
aColbeck, Rev. Alfred.. ..	1	1	0
aColchester, The Right Hon. the Lord Bishop of.. ..	0	10	6
aColman, Samuel C., Esq. ..	1	1	0
aCoode, Mrs.	1	1	0
aCooke-French, Thomas, Esq.	1	1	0
aCordes, Thomas, Esq. ..	1	0	0
aCornish, Miss Edith	0	10	6
aCorry, W. F. C., Esq. ..	0	10	6
aCosgrave, Rev. W. F. ..	2	0	0
aCotterell, A. P. J., Esq. ..	0	10	6
aCotton, Lady	1	1	0
aCrewdson, Theodore, Esq. ..	1	1	0
aCropper, J., Esq., M.D. ..	2	2	0
aCross, W. M., Esq.	1	1	0
aCrossfield, Albert J., Esq. ..	1	1	0
aCrossfield, J. B., Esq. ..	0	10	6
aCrowther, Miss	1	1	0
aCudworth, Mrs.	1	1	0
aCurrie, James, Esq.	1	1	0
aDalison, Rev. R. W. H. ..	1	1	0
aDalton, Rev. Dr. G. W. ..	0	10	6
aDangerfield, J., Esq... ..	1	1	0
aDarby, Miss M. L. B. ..	1	1	0
aDavies, Miss	1	1	0
aDavies, Henry John, Esq. ..	2	2	0
aDawson, Edward, Esq. ..	1	1	0
aDawson, Ed. B., Esq. ..	1	1	0
aDeane, Mrs. J. W.	0	10	6
aDeed, Rev. J. G.	0	10	6
aDenny, Prof. Collins.. ..	0	10	2
aDeverill, F. H., Esq... ..	1	1	0
aDickons, J. Norton, Esq. ..	2	2	0
aDigby, J. K. D. Wingfield, Esq.	1	1	0
aDixon, W., Esq.	0	10	6
aDobbs, A. E., Esq.	1	1	0
aDobson, Mrs.	0	10	6
aDodgson, Aquila, Esq. ..	0	10	6
aDudfield, Dr. T. Orme ..	1	1	0
aDuncan, Mrs. E.	1	2	0
aDuthoit, Miss M. A... ..	0	10	6
aDutton, Wm., Esq.	1	1	0
aDyke, Thomas, Esq... ..	1	1	0
aDykes, W. Alston, Esq. ..	1	1	0
aEarle, Miss	1	1	0
aEdwards, Rev. Allen T. ..	1	1	0
aEdwards, Wm., Esq... ..	2	2	0
aElizabeth, Sister Mary ..	0	10	6
aElliot, Rev. E. K.	0	10	6
aElliot, John, Esq.	1	1	0
	£154	19	3

	£	s.	d.
Brought forward	154	19	3
aElwes, Miss E. A.	0	10	6
aEmpson, W., Esq.	1	1	0
aEvans, Rev. Canon	1	1	0
aEvans, Owen, Esq.	1	1	0
aEvill, Rev. W. E.	2	2	0
aEyre, The Most Rev. Archdeacon	1	0	0
aFarmer, Rev. G.	0	10	6
aFarquharson, Col. Sir John..	1	1	0
aFarrer, Rev. W.	1	1	0
Farrer, Rev. W. (Don.) ..	1	1	0
aFeis, Jacob, Esq.	1	1	0
aFellows, Charles F., Esq. ..	5	0	0
aFenton, Rev. E.	0	10	6
aFerguson, W., Esq.	1	1	0
aFergusson, A. A., Esq. ..	0	10	6
aFinch, Colonel Wynne ..	0	10	6
aFinney, Mrs.	0	10	6
aFord, C., Esq.	0	10	6
aFowler, Mrs.	1	1	0
aFox, Dr. Hingston	0	10	6
aFox, T., Esq.	0	10	6
aFrankel, Dr. L.	1	1	0
aFreeman, Mrs. D. A. ..	1	1	0
aFreer, The Ven. Archdeacon	1	1	0
aFreshfield, Rev. J. M. ..	1	1	0
aFrew, Robert, Esq.	0	10	6
aFurber, Mrs.	2	2	0
aGarnett, Robert, Esq. ..	0	10	6
aGaskill, Rev. A. H.	1	1	0
aGee, Rev. Canon, D.D. ..	1	1	0
aGerman Palestine Union ..	0	10	6
aGibbs, J. G., Esq.	1	1	0
aGibson, Mrs.	1	1	0
aGifford. Dr.	1	1	0
aGill, Thomas G.	1	1	0
aGillespie, Mrs.	0	10	6
aGiven-Wilson, Rev. T. ..	1	0	0
aGlasier, W. R. M., Esq. ..	1	1	0
aGlegg, Alex., Esq.	0	10	6
aGoadby, Major	1	1	0
aGoddard, Rev. C. V... ..	0	10	6
aGoddeu, A. G. E., Esq. ..	1	1	0
aGoodall-Copestake, Miss S. ..	0	10	0
aGoodhart, Rev. Ch. A. ..	0	10	6
aGort, Viscount	1	0	0
aGough, Rev. T.	1	1	0
aGovett, R., Esq.	1	0	0
aGrain, W., Esq.	1	1	0
aGraham, John E. T... ..	0	10	6
aGraham, William, Esq. ..	1	1	0
aGray, Mrs. Hugh	0	10	6
aGregory, J. V., Esq... ..	0	10	6
aGriffith, Mrs...	0	10	6
aGrote, Mrs.	1	1	0
	£206	9	3

	£	s.	d.
Brought forward	206	9	3
aGrote, Miss	1	1	0
aGrove, Miss	0	10	6
aGuthe, Prof. Dr. H... ..	0	10	6
aGurney, Henry, Esq. ..	0	10	6
aHaden, J. Poynter, Esq. ..	0	10	6
aHales, Rev. C. T.	1	1	0
aHall, Miss F...	1	1	0
aHamel, Rev. E. T.	0	10	6
aHamilton, Dr...	1	1	0
aHammer, Geo. M., Esq. ..	1	11	6
aHarding, A. R., Esq... ..	0	10	6
aHardwick, A., Esq.	2	2	0
aHarrison, S. H., Esq. ..	0	10	6
aHarvey, John, Esq.	1	1	0
aHarvey, Ralph, Esq... ..	0	10	6
aHassé, Rev. E. R.	1	1	0
aHatchell, The Ven. Archdeacon	1	1	0
aHawkins, H., Esq.	0	10	6
aHayward, J. T., Esq... ..	1	0	0
aHenderson, Rev. Dr. A. ..	1	1	0
aHenry, George, Esq... ..	0	10	6
aHerschell, Rev. D. A. ..	0	10	6
aHewitson, J. R., Esq. ..	0	10	6
aHeywood, B. A., Esq. ..	1	1	0
aHibbert, Rev. J. A. N. ..	1	1	0
aHiggins, Rev. V. G.	1	1	0
aHill, Gray, Esq.	1	1	0
aHindley, Thomas, Esq. ..	1	1	0
aHine, Alfred, Esq.	0	10	6
aHird, H. S., Esq.	0	10	6
aHobson, Rev. J. P.	0	10	6
aHodgetts, Mrs. C. J. Chambers	1	0	0
aHogg, Mrs.	1	1	0
aHogg, Miss	0	10	6
aHolden, E. T., Esq.	2	2	0
aHolloway, Rev. W. J. ..	0	10	6
aHope, Miss G.	1	1	0
aHopkins, Mrs. Marshland ..	0	10	6
aHopkins, Rev. E. H... ..	1	1	0
aHorn, Miss	0	10	6
aHorner, Mrs. Sophia G. ..	1	1	0
aHorsfield, T. C., Esq. ..	1	0	0
aHort, Arthur F., Esq. ..	0	10	6
aHovey, Rev. Dr. A.	1	0	0
aHoworth, Rev. J. G... ..	1	1	0
aHowson, Mrs. H.	0	10	6
aHubbersty, H. A., Esq. ..	1	1	0
aHughes, Miss F. A.	1	1	0
aHughes, J. H., Esq.	1	1	0
aHunt, Miss A. St. John ..	0	10	6
aHunt, Rev. A. E.	1	1	0
aHurt, Albert F., Esq. ..	1	1	0
aHutchinson, General G. ..	1	1	0
aH.X.Y.N.L.	1	1	0
aIngelow, B., Esq.	1	1	0
	£255	1	9

	£	s.	d.
Brought forward	255	1	9
aIrby, Miss	1	1	0
aIsaacs, Samuel, Esq... ..	1	1	0
aIveagh, The Right Hon. Lord	3	0	0
aJames, Mrs. Henry	0	10	6
Johnes, General Sir J. Hills, V.C. (Don.)	1	1	0
aJohnson, C. Neville, Esq. ..	0	10	6
aJohnson, W. B., Esq. ..	2	0	0
aJohnston, Rev. J. O.	0	10	6
aJones, Arthur W., Esq. ..	5	0	0
aJones, Rev. Secretan	0	10	6
aJones, Richard J., Esq. ..	1	1	0
aJones, Rev. W. S.	0	10	6
aJones, Rev. W. Vaughan ..	0	10	6
aJones-Balme, Frank I., Esq.	1	1	0
aJoy, Rev. Canon	0	10	6
aJunkin, George, Esq. ..	1	0	0
aKane, Rev. J. P.	0	10	6
aKasteren, Rev. J. P. Van ..	0	10	6
aKelsall, Miss	0	10	6
aKennedy, Wm.	1	1	0
aKerr, Robert, Esq.	0	10	6
aKilbon, Rev. C. W.	0	10	6
aKing, Charles S., Esq. ..	1	1	0
aKing, G. A., Esq.	1	1	0
aKirkpatrick, Rev. Prof. A. F.	1	1	0
aLane, Mrs.	1	1	0
aLang, Rev. R.	0	10	6
aLarkin, Rev. H.	1	1	0
aLawson, C., Esq.	0	10	6
aLeatham, Charles A., Esq. ..	1	1	0
aLee, Rev. Canon	1	1	0
aLeeds Public Library ..	2	2	0
aLeicester, Rev. John A. ..	1	1	0
aLeroy, Rev. Hippolyte ..	0	10	6
aLewis, Mrs. S. S.	1	1	0
aLindsay, A. M., Esq. ..	0	10	6
aLinton, Rev. W. R.	0	10	6
aLivesey, George, Esq. ..	1	1	0
aLloyd, Howard, Esq... ..	1	1	0
aLock, Rev. W.	1	1	0
aLondon Society for P. C. Jews	0	10	6
aLongdon, Miss	0	10	6
aLoudon, Dr. James	1	1	0
aLowther, Rev. W.	0	10	6
aLush, Dr. Wm. Vawdrey ..	0	10	6
aMcAfee, William, Esq., M.D.	0	10	6
aMcClintock, Rev. F. G. ..	0	10	6
aMcClure, Lady	1	1	0
aMcCready, Mrs.	1	1	0
aMcGregor, Rev. W. M. ..	2	2	0
aMacInnes, Miss	0	10	6
aMackennal, Rev. Dr. A. ..	1	1	0
aMackintosh, Miss	1	1	0
aMcMillan, Rev. Robert ..	1	0	0
	£308	0	9

	£	s.	d.
Brought forward	308	0	9
aMcNeill, Mrs...	1	1	0
aMacan, George, Esq... ..	0	10	6
aMadan, Rev. Canon N. ..	1	1	0
aMargetson, Mrs.	1	1	0
aMartin, Miss	1	0	0
aMarriott, Allan, Esq. ..	0	10	6
aMathieson, Geo., Esq. ..	2	0	0
aMaxwell, Miss	0	10	6
aMaxwell, W. H., Esq. ..	2	0	0
aMearns, Rev. P.	0	10	6
aMiddlesbrough Corporation Free Library	0	10	6
aMillar, Robert, Esq... ..	0	10	6
aMilner, Rev. W. M. H. ..	1	1	0
aMitchell, Ed. C., Esq. ..	0	10	6
aMonckton, Miss	0	10	6
aMontefiore, Claude G., Esq.	1	1	0
aMoore, Arthur, Esq., M.P...	1	1	0
aMorgan, Colonel	1	1	0
aMorgan, Rev. Z.	0	10	6
aMorris, J., Esq.	1	1	0
aMoule, Prof. H. C. G. ..	1	1	0
aMurray, Rev. D. S.	0	10	6
aNewton, Miss..	0	10	6
aNewton, C. E., Esq.	1	1	0
aNevinson, G. H., Esq. ..	1	0	0
aNixon, Miss	0	10	6
aNoble, General W. Hatt ..	1	1	0
aNorthcroft, H., Esq... ..	0	10	6
aNorthumberland, His Grace the Duke of, K.G.	1	1	0
aO'Hanlon, Wm., Esq. ..	2	2	0
aOrr, Andrew, Esq.	0	10	6
aOwen, Rev. Thomas	0	10	6
aPaisley Philosophical Institution	1	1	0
aPalmer, Rev. A. W. Washington	0	10	6
aParker, J. W., Esq.	1	1	0
aParker, Mrs. J. W.	1	1	0
aParr, Miss	0	10	6
aParr, Rev. E. G. C.	0	10	6
aPatterson, Rev. Thomas M...	1	1	0
aPaul, J. F., Esq.	0	10	6
aPaul, Rev. David	0	10	6
aPeebles, David M., Esq. ..	1	0	0
aPeet, W. W., Esq.	1	0	0
aPelton, W. F., Esq.	1	1	0
aPenny, Norman, Esq. ..	0	10	6
aPeters, Miss Harriette ..	0	8	6
aPewtress, E., Esq.	1	1	0
aPhillips, Mrs. E.	0	10	6
aPhillips, Rev. G. W... ..	0	10	6
aPhilpott, J. A., Esq... ..	1	1	0
aPhilpott, Charles C., Esq. ..	2	2	0
	£352	13	9

	£	s.	d.
Brought forward	352	13	9
aPhipps, Rev. R.	0	10	6
aPickering, Robt., Esq. ..	0	10	6
aPim, James, Esq.	0	10	6
aPim, John, Esq.	0	10	6
aPinchin, Rev. Hugh T. ..	1	1	0
aPiper, W., Esq.	1	1	0
aPlummer, Mrs.	0	10	6
aPollock, Rev. W. J.	1	1	0
aPowell, B., Esq.	0	10	6
Prance, Reginald Heber (Don.)	26	5	0
aPreece, W. H., Esq.	1	0	0
aPresbyterian College, Halifax	0	10	6
aPritchard, Rev. R. W. ..	0	10	6
aPrideaux, Miss Mabel ..	1	1	0
aProctor, Robert, Esq. ..	0	10	6
aProut, Rev. E. A.	0	10	6
aRanken, Rev. C. E.	0	10	6
aRavenstein, E. G., Esq. ..	1	11	6
aRawes, Rev. F. Russell ..	1	1	0
aReid, J. Christie, Esq. ..	1	1	0
aRetaux, Victor, Esq.	0	10	6
aReynolds, Rev. C. L... ..	0	10	6
aRichards, W. J. B., Esq. ..	0	10	6
aRichardson, Rev. G... ..	0	10	6
aRiley, Thomas, Esq... ..	1	1	0
aRoberts, Rev. Commander L. G. A.	0	10	6
aRobinson, C., Esq.	1	0	0
aRobinson, Mrs. E.	1	1	0
aRobson, Mrs.	1	1	0
aRogers, Rev. Dr. Wm. Henry	1	1	0
aRoinard, Prof. E. M. ..	0	9	11
aRooker, Rev. J.	0	10	6
aRopes, Prof. C. H.	0	10	6
aRoss, Rev. D. M.	0	10	6
aRowan, D. J., Esq.	1	1	0
aRowe, Rev. G. S.	1	1	0
aRudd, H. E., Esq.	1	1	0
aRumsey, Rev. Lacy H. ..	0	10	6
aRussell, Rev. James, D.D. ..	1	1	0
aRussell, Joseph, Esq... ..	1	0	0
aSamuel, Charles, Esq. ..	1	1	0
aSamuel, Dennis E., Esq. ..	1	1	0
aSaunders, John A.	0	10	6
aScattergood, J., Esq... ..	1	1	0
aSemple, Rev. Dr. A... ..	0	10	6
aSendall, Mrs...	2	2	0
aSerocold, C. Pearce, Esq. ..	1	1	0
aSessions, Fred., Esq... ..	0	10	6
aSewell, Miss Eva C.	0	10	6
aShackleton, Rev. T.	1	1	0
aSharp, Miss	0	10	6
aSharpe, Cecil, Esq.	1	1	0
aShaw, Rev. D.	0	10	6
aSheffield, Mrs. T.	0	10	6
	£421	5	8

	£	s.	d.
Brought forward	421	5	8
aSherren, John A.	1	1	0
aSinclair, Bailie Alex... ..	1	0	0
aSindall, Alfred, Esq... ..	1	1	0
aSlade, Wm., Esq.	0	10	6
aSmart, F. G., Esq.	1	1	0
aSmith, Dr. Andrew Scott ..	0	10	6
aSmith, Cicero, Esq.	1	1	0
aSmith, Rev. W. H. Payne ..	1	1	0
aSmith, Mrs. M. E. Hardick ..	1	1	0
aSmith, Rev. R. C.	1	0	0
aSmith, W. Taylor, Esq. ..	1	1	0
aSomervell, R., Esq.	0	10	6
aSomerville, Geo., Esq. ..	0	10	6
aSouth Shields Public Library	1	1	0
aStables, Rev. W. H.	0	10	6
aStanning, Rev. J. H. ..	1	1	0
Stembelt, J. N. C., Esq. (Don.)	3	0	0
aSterling, Captain C.	1	1	0
aStevens, F. J., Esq.	1	1	0
aStevenson, W. E., Esq. ..	1	1	0
aStewart, Rev. Joseph A. ..	0	10	6
aStirrup, Mark, Esq.	0	10	6
aStock, Eugene, Esq.	0	10	6
aStokes, Rev. Dr.	1	1	0
aStokes, W. F., Esq.	0	10	6
aStreet, W., Esq.	1	1	0
aStrutt, Wm., Esq.	1	1	0
aStyles, Mrs. H. A. W. ..	1	1	0
aSulzberger, Mayer, Esq. ..	1	1	0
aSutcliffe, Alderman Sugden ..	0	10	6
aSutton, Martin Hope, Esq. ..	0	10	6
aSwan, Mrs.	1	1	0
aSwayne, Canon	1	1	0
aSykes, Rev. Henry	1	1	0
aTanner, Charles, Esq. ..	0	10	6
aTaylor, Alex., Esq.	2	2	0
aTaylor, J. F., Esq.	0	10	6
aTaylor, J. W., Esq.	0	10	6
aTaylor, Rev. J. W. W. ..	1	0	0
aTenz, J. M., Esq.	0	10	6
aThackwell, Major Loftus ..	0	10	6
aThomas, Rev. Frank M. ..	0	10	2
aThomas, Rev. Geo. G. S. ..	0	10	6
aThomas, Rev. John	1	1	0
aThomson, Basil, Esq. ..	1	1	0
aTomlinson, Miss	1	1	0
aTrotter, Canon	1	1	0
aTremlett, J. D., Esq... ..	1	1	0
aTrimmer, Rev. H. E... ..	1	1	0
aTurbervill, Colonel J. P. ..	1	1	0
aTurbervill, Mrs. Picton ..	0	10	6
aTurnbull, R. T., Esq. ..	1	1	0
aTurner, W., Esq.	0	10	6
aTwelves, Henry T., Esq. ..	0	10	6
aTyndall, W. H., Esq. ..	1	1	0
	£470	16	10

	£	s.	d.
Brought forward	470	16	10
aUnderhill, Dr. E. B.	1	1	0
aVaughan Library	1	1	0
aVenables, Rev. H. A. ..	1	1	0
aWalker, Rev. Alex.	1	1	0
aWallis, W. Clarkson, Esq. ..	1	1	0
aWalters, The Ven. Archdeacon	0	10	6
aWard, Mrs. Ogier	0	10	6
aWarder, Mrs. Benjamin H. ..	1	0	0
aWarren, W. H., Esq. ..	0	10	0
aWaterhouse, J. Henry, Esq.	1	1	0
aWates, Joseph, Esq.	0	10	6
aWatson, G., Esq.	1	1	0
aWatson, D. M., Esq.	1	1	0
aWatson, Rev. H. A.	0	10	6
aWay, Rev. J. P.	1	1	0
aWebb, Miss	0	10	6
aWelch, Rev. Adam C. ..	1	1	0
aWeikert, Prof. Thomas ..	0	10	7
aWeld, Miss A. G.	0	10	6
aWeldon, J. H., Esq.	0	15	0
aWestern, Ed. Y., Esq. ..	1	1	0
aWeston, Arnold R., Esq. ..	0	10	6
aWheeler, R. G., Esq. ..	0	10	6
aWhitaker, Rev. A. Master ..	1	1	0
aWhite, J. N., Esq.	0	10	6
aWhite, N. C., Esq.	1	1	0
aWhitfield, M. W., Esq. ..	0	10	6
aWhitlock, Rev. G. S.	1	1	0
aWigham, J. R., Esq.	1	1	0
	£494	12	5

	£	s.	d.
Brought forward	494	12	5
aWilkinson, J. R., Esq. ..	1	1	0
aWilkinson, Rev. T. H. ..	1	1	0
aWilliamson, V. A., Esq. ..	1	1	0
aWilson, M. M., Esq.	1	1	0
aWilson, Rev. C. T.	0	10	6
aWilson, Rev. Herbert ..	0	10	6
aWilson, Rev. J. R.	1	0	0
aWilson, Rev. J. Stewart ..	1	0	0
aWilson, Rev. W. Wynne ..	1	1	0
aWindsor, Right Rev. the Dean of	0	10	6
aWinsford, W., Esq.	1	1	0
aWood, P. F., Esq.	1	1	0
aWood, Fred. A., Esq. ..	1	1	0
aWood, Rev. A. T.	1	1	0
aWoodall, W., Esq., M.P. ..	0	10	6
aWoodhouse, A. J., Esq. ..	1	1	0
aWoolf, A. M., Esq.	1	1	0
aWoolley, J. T., Esq.	0	10	6
aWorcester, Bishop of ..	1	1	0
aWorkman, W. P., Esq. ..	0	10	6
aWright, Rev. C. H. H. ..	1	0	0
aWright, Mrs. J. W.	2	2	0
aWright, Rev. W. Heber ..	0	10	6
aWyatt, W. J., Esq.	0	10	6
aWyndham, Rev. F. M. ..	0	10	6
aYoung, A. W., Esq.	2	2	0
	£519	2	11

UNITED STATES, AMERICA.

Rev. Professor Theodore F. Wright, Ph.D., *Hon. General Secretary and Lecturer for the Fund.*

	£	s.	d.
Oct. 12.—By cash ..	13	2	4
Nov. 9.— „ ..	33	11	9
Dec. 14.— „ ..	20	7	10
	£67	1	11

	Dols.
*a*Bassett, Rev. A. B.	2·50
*a*Billings, G. F., Esq.	5·00
*a*Blakeslee, Rev. F. D., D.D. ..	2·50
*a*Brimin, Dr. B. J.	2·50
*a*Campbell, Rev. J. I.	2·50
*a*Clark, E. W., Esq.	25·00
*a*Colgate University	2·50
*a*Congregational Library ..	2·50
*a*Crane, Alfred J., Esq.	10·00
*a*Curtiss, Prof. S. I.	2·50
*a*Davies, Prof. W. W.	2·50
*a*Davis, Rev. W. P., D.D. ..	2·50
*a*Dempster, A., Esq.	5·00
*a*Dudley, Charles B., Esq. ..	5·00
*a*Dulles, Rev. J. N., D.D. ..	2·50
*a*Eames, Wilberforce, Esq. ..	2·50
*a*Eccleston, Rev. J. H.	10·00
*a*Ewell, Rev. J. L., D.D. ..	2·50
*a*Gage, Miss M. A.	2·50
*a*Gammell, Wm., Esq.	10·00
*a*Gillman, Henry, Esq.	2·50
*a*Hodge, Rev. T. A., D.D. ..	2·50
*a*Howell, A. J., Esq.	2·50
*a*Johnson, R., Esq.	25·00
*a*Johnston, Rev. R. P., D.D. ..	5·00
*a*Kent, Prof. Chas. F., Ph.D. ..	5·00
*a*Lake Erie College	5·00
*a*Leeds, Rev. S. P.	2·50
*a*Leslie, Mrs. D.	2·50
*a*Lond, H. N., Esq.	2·50
*a*McCartney, R., Esq.	5·00
*a*McNary, J. W., Esq.	2·50
*a*Marsh, Charles A., Esq. ..	5·00
*a*Osborn, Mrs. H. S.	5·00
*a*Peters, Rev. J. P., D.D. ..	5·00
*a*Philps, Mrs. J. C.	5·00
*a*Reed, Rev. James	2·50
*a*Rogers, Prof. R. W., Ph.D. ..	2·50
*a*Sage Library	5·00
*a*Sharpe, Miss M. A.	51·15
*a*Shepherd, Dr. G. R.	5·00
*a*Steele, Mrs. E. B.	5·00
*a*Stewart, Prof. R. L.	5·00
*a*Stokes, W. H., Esq.	2·50
*a*Thayer, Prof. J. N.	5·00
	$268·65

	Dols.
Brought forward	268 65
*a*Thompson, J. A., Esq.	2·50
*a*Trumbull, Rev. H. Clay, D.D.	2·50
*a*Walker, Prof. Dean A... ..	2·50
*a*Walsh, Rev. John	5·00
*a*Wood, Frank, Esq.	5·00
*a*Wood, Mrs. F.	5·00
Sales of Maps, Books, &c. ..	38·52
	$329·67

ABERDEEN.

Miss Mary Forbes, *Hon. Sec.*

	£	s.	d.
By cash	6	2	6
Collection expenses ..	0	5	0
	£6	7	6

	£	s.	d.
*a*Allan, David, Esq.	0	10	6
Anderson, Mrs. (Don.) ..	0	2	6
*a*Davidson, Miss M. M. ..	0	10	6
*a*Doak, Rev. Andrew	0	10	6
*a*Gordon, Wm., Esq.	0	10	6
*a*Hunter, William, Esq. ..	0	10	6
*a*Hutchinson, Thos., Esq. ..	0	10	0
Lunan, Robert, Esq. (Don.)..	0	5	0
M. (Don.)	0	2	6
Mitchell, S. J., Esq. (Don.) ..	0	5	0
Nicol, J. B., Esq. (Don.) ..	0	5	0
Nicol, Rev. Thos. (Don.) ..	0	5	0
*a*Spence, Miss	1	0	0
*a*Stephen, Jas., Esq., R.N. ..	1	0	0
	£6	7	6

ALFRETON.

J. G. Wilson, Esq., *Hon. Sec.*

Oct. 7.—By cash .. £2 2*s.* 0*d.*

	£	s.	d.
*a*Beckton, Rev. Arthur C. ..	1	1	0
*a*Wilson, J. G., Esq.	1	1	0
	£2	2	0

ARMAGH.

Rev. W. Moore Morgan, LL.D., *Hon. Sec.*

Oct. 17.—By cash .. £1 1*s.* 0*d.*

	£	s.	d.
*a*Armagh Public Library ..	1	1	0

ASHFORD.

Rev. Charles Harris, M.A., F.R.G.S., *Hon. Sec.*

Nov. 2.—By cash .. £0 10*s.* 6*d.*

	£	*s.*	*d.*
*a*Smith, Rev. R. Payne ..	0	10	6

BURNLEY.

Alfred Strange, Esq., J.P., *Hon. Sec.*

Nov. 7.—By cash .. £1 11*s.* 0*d.*

	£	*s.*	*d.*
*a*Grant, F. J., Esq., J.P. ..	0	10	6
*a*Strange, Alfred, Esq.. ..	0	10	0
*a*Ward, J. Langfield, Esq., M.A.	0	10	6
	£1	11	0

COLERAINE.

W. J. Baxter, Esq., M.C.P.S.I., *Hon. Sec.*

Oct. 23.—By cash .. £1 0*s.* 0*d.*

	£	*s.*	*d.*
*a*Torrens, Major J. A... ..	1	0	0

CORK.

H. S. Noblett, Esq., *Hon. Sec.*

Dec. 11.—By cash .. £9 9*s.* 0*d.*

	£	*s.*	*d.*
*a*Atkins, W. R., Esq.	0	10	6
*a*Beamish, W. H., Esq. ..	0	10	6
*a*Clarke, Rev. R. F. (1898 and 1899)..	1	1	0
*a*Daunt, Rev. Canon W. ..	0	10	6
*a*Fleming, Very Rev. H. T. ..	0	10	6
*a*Hodder, Geo. F., Esq. ..	0	10	6
*a*Lane, Wm. Guest, Esq. ..	1	1	0
*a*Lunham, Thos., Esq., J.P. ..	1	1	0
*a*Newsom, S. H., Esq... ..	1	1	0
*a*Sandford, A. W., Esq., M.D.	1	1	0
*a*Sunner, R., Esq.	0	10	6
*a*Townsend, Rev. H. W. ..	1	1	0
	£9	9	0

DARLINGTON.

J. P. Pritchett, Esq., *Hon. Sec.*

Nov. 22.—By cash .. £5 15*s.* 6*d.*

	£	*s.*	*d.*
*a*Backhouse, J. E., Esq. ..	1	1	0
*a*Backhouse, Mrs. J. E. ..	2	2	0
*a*Pease, Mrs. G.	2	2	0
*a*Pritchett, J. P., Esq... ..	0	10	6
	£5	15	6

DUNFERMLINE.

Rev. John Campbell, *Hon. Sec.*

Dec. 17.—By cash .. £5 15*s.* 6*d.*

	£	*s.*	*d.*
Campbell, Rev. John (Don.)	0	7	6
*a*Inglis, William, Esq. (1898 and 1899)	1	1	0
*a*McFarlane, James, Esq. (1898 and 1899)	1	0	0
*a*McLaren, Wm., Esq. (1897–1899)	1	10	6
Mitchell, Rev. D. (Don.) ..	0	5	0
*a*Ross, John, Esq. (1897–1899)	1	11	6
	£5	15	6

FOLKESTONE.

Rev. E. H. Cross, D.D., *Hon. Sec.*

By cash .. .. £8 18*s.* 6*d.*

	£	*s.*	*d.*
*a*Campbell, Captain	0	10	6
*a*Cooper, Stanley, Esq. ..	0	10	6
*a*Cross, Rev. Dr.	1	1	0
*a*Deck, Rev. H. L. Richmond..	1	1	0
*a*Gordon, John, Esq.	0	10	6
*a*Knollys, Rev. W. Erskine ..	0	5	0
*a*Lloyd-Jones, Rev. F. E. ..	0	5	0
*a*Phillips, F. M., Esq... ..	1	1	0
*a*Price, E. Spencer, Esq. ..	0	10	6
*a*Purton, Miss	0	10	6
*a*Scobie, J. A. M., Esq. ..	0	10	6
*a*Stonehouse, Rev. C.	0	10	6
*a*Tower, Mrs.	0	6	0
*a*Woodhouse, Rev. F. C. ..	1	1	0
*a*Woodward, Mrs.	0	5	0
	£8	18	6

GALASHIELS.

Kenneth Cochrane, Esq., *Hon. Sec.*

Dec. 15.—By cash .. £15 17*s.* 6*d.*

	£	*s.*	*d.*
*a*Brown, Adam, Esq.	1	1	0
*a*Callander, Rev. W. Corson ..	0	10	6
*a*Cochrane, A. L., Esq. ..	0	10	6
*a*Cochrane, James, Esq. ..	1	1	0
*a*Cochrane, John, Esq. ..	0	10	6
*a*Cochrane, Kenneth, Esq. ..	1	1	0
*a*Cochrane, Walter, Esq. ..	0	10	6
*a*Dickson, A. Anderson, Esq...	0	10	6
*a*Dickson, G. P., Esq.	0	10	6
*a*Dickson, James, Esq. ..	1	1	0
*a*Fairgrieve, Thomas, Esq. ..	0	10	6
*a*Hebertson, Adam, Esq. ..	0	10	6
*a*Hunter, Rev. D., D.D. ..	0	10	6
*a*Leadbetter, Alex., Esq. ..	0	10	6
Carried forward	£9	9	0

	£	s.	d.
Brought forward	9	9	0
aLees, John, Esq.	1	1	0
aMatheson, Rev. W. S. ..	0	10	6
aSanderson, James, Esq. ..	1	1	0
aSanderson, Robert, Esq. ..	0	10	6
aSanderson, W. A., Esq. ..	1	1	0
aSomerville, R., Esq., M.D. ..	0	10	6
aThomson, Rev. W. Burnet, M.A., B.D.	0	10	6
Sale of Books	1	3	6
	£15	17	6

GREENOCK.

Rev. Hugh Macmillan, LL.D., D.D., *Hon. Sec.*

	£	s.	d.
aMacmillan, Rev. Dr. Hugh..	0	10	6

HOBART.

Lieut.-Col. E. T. Wallach, *Hon. Sec.*

	£	s.	d.
aWallach, Lieut.-Col. E. T. ..	0	10	6

ISLE OF WIGHT.

Rev. W. Goldsborough Whittam, *Hon. Sec.*

Oct. 2.—By cash .. £4 0*s.* 8*d.*

	£	s.	d.
aWhittam, Rev. W. Goldsborough (1897–99)	1	11	6
Sales of lantern slides ..	2	9	2
	£4	0	8

JERUSALEM.

Percy D'Erf Wheeler, Esq., M.D., F.R.C.S., *Hon. Sec.*

By cash £7 8 9

	£	s.	d.
aWilson, Rev. D. M.	1	1	0
Cash received	0	10	4
Sales of books, &c.	5	17	5
	£7	8	9

LIVERPOOL.

A. B. Thorburn, Esq., *Hon. Sec.;* **T. F. A. Agnew, Esq.,** *Hon. Treas.*

Sept. 27.—By cash .. £2 12*s.* 6*d.*

	£	s.	d.
aGood, Miss	0	10	6
aGough, Admiral	0	10	6
aHill, Gray, Esq.	1	1	0
aOgden, Thomas, Esq. ..	0	10	6
	£2	12	6

MANCHESTER.

C. J. Heywood, Esq., *Treasurer.*
Rev. W. F. Birch, M.A., *Hon. Sec.*

Dec. 22.—By cash .. £16 2*s.* 6*d.*

	£	s.	d.
aBarlow, J. R., Esq.	0	10	6
aBaxendall, Miss	1	1	0
aBaxendall, Walter, Esq. ..	1	1	0
aBellhouse, Ernest, Esq. ..	1	1	0
aBurwell, Rev. George (1899 and 1900)	2	2	0
aChippendall, Rev. J... ..	0	10	6
aConsterdine, Rev. J. W. ..	0	10	6
aEastwood, J. A., Esq. ..	0	10	6
aKelly, Rev. Canon J. D. ..	0	10	6
aLees, Miss	0	10	6
aLynch, Rev. Patrick (1898–1900)	2	10	6
aMcLaren, Rev. A., D.D. ..	1	1	0
aPhillips, Robt., Esq... ..	1	0	0
aRobinson, Rev. A. C. ..	1	1	0
aRobinson, J. F., Esq. ..	1	1	0
aRockwood, C. J., Esq. ..	0	10	6
aStowell, Rev. Canon.. ..	0	10	6
	£16	2	6

NEWCASTLE-ON-TYNE.

A. Brooke Lloyd, Esq., *Hon. Sec.*

Oct. 19.—By cash .. £3 1*s.* 0*d.*

	£	s.	d.
aJoicey, Mrs. E.	2	0	0
aLloyd, A. Brooke, Esq. ..	0	10	6
aTennant, James, Esq. ..	0	10	6
	£3	1	0

PERTH.

Rev. P. A. Gordon Clark, *Hon. Sec.*

Dec. 19.—By cash .. £13 0*s.* 6*d.*

	£	s.	d.
aBaxter, Rev. G. C.	0	10	6
aClark, Rev. P. A. Gordon ..	0	10	6
aCoates, Andrew, Esq. ..	0	10	6
aCrawford, Rev. Thos., B.D...	0	10	6
aFraser, J. M., Esq.	2	0	0
aKippen, Rev. J. J. Glen, B.D.	0	10	6
aMacdonald, John, Esq. ..	0	10	6
aMcEwen, James, Esq. ..	1	1	0
aMcLeish, William, Esq. ..	1	1	0
aMcNeill, John, Esq... ..	0	10	6
aPullar, James, Esq.	1	1	0
aPullar, Sir Robert	2	2	0
aRobinson, Rev. J. A. G., M.A.	0	10	6
aRobson, Rev. Dr.	0	10	6
aSutherland, Rev. A.	0	10	6
aThomas, John, Esq.	0	10	6
	£13	0	6

STOCKTON-ON-TEES.

Henry Clark, Esq., *Hon. Sec.*

Dec. 7.—By cash .. £5 5*s.* 0*d.*

	£	*s.*	*d.*
*a*Backhouse, Mrs.	1	1	0
*a*Brady, Arthur, Esq.	0	10	6
*a*Cradock, J., Esq.	0	10	6
*a*Mounsey, E. B., Esq. ..	1	1	0
*a*Mounsey, Miss L. E... ..	1	1	0
*a*Pumphrey, T. W., Esq. ..	0	10	6
*a*Robinson, C., Esq.	0	10	6
	£5	5	0

SYRIA.

Dr. E. W. G. Masterman, *Hon. Sec.*
E. G. Freyer, Esq., *Hon. Treas.*

Dec. 27.—By cash .. £4 14*s.* 4*d.*

	£	*s.*	*d.*
*a*Freyer, E. G., Esq.	0	10	6
*a*Hardin, Rev. O. J.	0	10	6
*a*Jessup, Rev. H. H.	0	10	6
*a*Jessup, Rev. S.	0	10	6
*a*Khouri, Constantine, Esq. ..	0	10	6
*a*Kitching, Miss L.	1	1	0
*a*Porter, Rev. H.	0	10	6
*a*Sarruf, Nimr, and Mackarius	0	10	6
	£4	14	6

SINGAPORE.

Arthur Knight, Esq., *Hon. Sec.*

Dec. 27.—By cash .. £2 2*s.* 0*d.*

	£	*s.*	*d.*
Hill, Hon. E. C.	1	1	0
Knight, Arthur, Esq. ..	1	1	0
	£2	2	0

TAUNTON.

Rev. R. C. W. Raban, *Hon. Sec.*

Nov. 14.—By cash .. £0 10*s.* 6*d.*

	£	*s.*	*d.*
*a*Alford, Miss	0	10	6

WESTON-SUPER-MARE.

Rev. H. G. Tomkins, *Hon. Sec.*

Dec. 16.—By cash .. £3 1*s.* 0*d.*

	£	*s.*	*d.*
*a*Birkbeck, Rev. W. J. ..	0	10	0
*a*Haslewood, Miss	0	5	0
Rodham, Miss (Don.) ..	0	10	6
*a*Rossiter, Dr.	0	5	0
*a*Roxburgh, Dr.	0	5	0
*a*Stephens, Miss	0	10	0
*a*Stevens, Rev. M. O.	0	5	0
*a*Tomkins, Rev. N. G... ..	0	10	6
	£3	1	0

EXETER.

LECTURE.

	£	*s.*	*d.*
Proceeds of a lecture arranged for by Viscount Sidmouth, delivered by the Rev. Thos. Harrison	5	11	0

SUMMARY OF LOCAL SOCIETIES.

(Acknowledged in detail under special heading.)

	Sales of Books, Maps, &c.			Lectures.			Subscriptions and Donations.		
	£	*s.*	*d.*	£	*s.*	*d.*	£	*s.*	*d.*
Aberdeen		—			—		6	2	6
Alfreton		—			—		2	2	0
Armagh		—			—		1	1	0
Ashford		—			—		0	10	6
Burnley		—			—		1	11	0
Coleraine		—			—		1	0	0
Cork		—			—		9	9	0
Darlington		—			—		5	15	6
Dunfermline		—			—		5	15	6
Exeter		—		5	11	0		—	
Folkestone		—			—		8	18	6
Galashiels	1	3	6		—		14	14	0
Greenock		—			—		0	10	6
Hobart		—			—		0	10	6
Isle of Wight	2	9	2		—		1	11	6
Jerusalem	5	17	5		—		1	11	4
Liverpool		—			—		2	12	6
Manchester		—			—		16	2	6
Newcastle-on-Tyne		—			—		3	1	0
Perth		—			—		13	0	6
Singapore		—			—		2	2	0
Stockton-on-Tees		—			—		5	5	0
Syria		—			—		4	14	4
Taunton		—			—		0	10	6
United States of America ..	7	17	8		—		59	4	3
Weston-super-Mare		—			—		3	1	0
	£17	7	9	£5	11	0	£170	16	11

SUMMARY OF RECEIPTS.

From September 23rd to December 26th, 1899.

	£	*s.*	*d.*
Annual Subscriptions and Donations	519	2	11
Annual Subscriptions from Local Societies	170	16	11
Proceeds of Lecture	5	11	0
Total Sales of Books, Maps, and other Publications ..	127	2	9
	£822	13	7

LIST OF HONORARY SECRETARIES AND LOCAL ASSOCIATIONS.

AUSTRALIA.

ADELAIDE: Rev. F. W. Cox, Wakefield Street East.
NEW SOUTH WALES: Rev. Alfred George Stoddart, Southern Forest.
VICTORIA: E. F. J. Love, Esq., B.A., Queen's College, University of Melbourne.

CANADA.

MONTREAL: Rev. G. Abbott-Smith, 201, University Street.
ST. THOMAS, ONTARIO: Rev. George F. Salton.

CHINA.

KIUKIANG, CHINA: Rev. Edward S. Little.
SEOUL: Alex. Kenmure, Esq.

ENGLAND.

ALFRETON: Jos. Geo. Wilson, Esq., The Firs.
ASHBURTON: Rev. H. I. Barton Lee, Headborough.
ASHFORD, KENT: Rev. Charles Harris, M.A., F.R.G.S., Appledore.
BATH: General Warren Walker, R.E., Tilehurst, Sion Hill.
BIRMINGHAM:
BOLTON AND HORWICH: Rev. T. Forbes, Church Institute.
BOURNEMOUTH: W. McGregor, Esq., M.I.E.E., Glen Huntly, Richmond Park.
BROSELEY: Rev. I. W. Johnson, M.A., Benthall.
BURNLEY: Alfred Strange, Esq., J.P., Greenfield House.
CHARMOUTH, DORSET: Rev. Charles Druitt, The Vicarage, Whitechurch.
CHELMSFORD: Rev. H. K. Harris, Runwell Rectory, Wickford.
CHELTENHAM: Dr. E. Wilson, Westal.
CHESTER: Rev. J. Cairns Mitchell, B.D., F.R.A.S., 57, Parkgate Road.
CLIFTON and BRISTOL: Rev. Canon Wallace, M.A., 3, Harley Place.
DARLINGTON: J. P. Pritchett, Esq., 24, High Row.
DOVER: E. Wollaston-Knocker, Esq., Castle Hill House.
EDGBASTON: Rev. R. E. B. C. Daubeny, 73, Ryland Road.
EPSOM: Miss Hislop, High Street.
EXETER: Rev. J. H. Prince, 9, Friars Walk.
FALMOUTH, for the County of Cornwall: Wilson L. Fox, Esq., Carmino.
FOLKESTONE: Rev. E. H. Cross, D.D., Belvedere, Trinity Road.
FROME:

GUILDFORD: Col. E. H. Paske, Downside, Merrow.
HARTLEPOOL and WEST HARTLEPOOL: Rev. Robert Edmund Parr, 13, Farndale Terrace.
HINCKLEY: Rev. W. Earl, Tonge Lodge, Burbage.
HITCHIN: J. Pollard, Esq., High Down.
HORNSEA (near Hull): Rev. George G. S. Thomas.
HULL: W. Botterill, Esq., 23, Parliament Street.
ISLE OF WIGHT: Rev. W. Goldsborough-Whittam, Ryde.
LANCASTER:
LEDBURY: Rev. F. Salter Stooke-Vaughan, Wellington Heath Vicarage.
LEEDS: James Yates, Esq., Public Librarian.
LICHFIELD: Herbert M. Morgan, Esq.
LIVERPOOL: *Hon. Treas.*—T. Frederick A. Agnew, Esq., Agent of the Bank of England, Castle Street. *Hon. Sec.*—Alex. B. Thorburn, Esq., 13, Rumford Street.
MALVERN: Rev. C. E. Ranken, St. Ronans.
MANCHESTER: *Hon. Treas.*—C. J. Heywood, Esq., Manchester and Salford Bank. *Hon. Sec.*—Rev. W. F. Birch, Rector of St. Saviour's.
MORPETH: Rev. A. H. Drysdale.
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NORWICH: Rev. John Holden, Mansfield House, 126, Unthanks Road.
NOTTINGHAM: Rev. V. J. Higgins, Awsworth Vicarage.
OXFORD: Rev. G. W. Thatcher, M.A., B.D., Mansfield College.
PLYMOUTH: J. Shelly, Esq., and H. B. S. Woodhouse, Esq.
SALISBURY: J. Lardner Green, Esq., M.R.C.S., F.R.M.S., Tintinhull, Fowler's Road Hill.
SCARBOROUGH: H. Turnbull, Esq., 13, Grosvenor Road.
SHREWSBURY: Rev. C. H. Drinkwater, St. George's Vicarage.
SOUTHPORT: H. J. Bailey, Esq., M.D.
SOUTH SHIELDS: Rev. Arthur McCullagh, M.A., The Rectory, St. Stephen's.
STEVENTON: Rev. H. Hamilton Jackson, Milton Rectory, Berks.
STOCKPORT: Rev. F. W. Carpenter, 23, Hall Street.
STOCKTON-ON-TEES: Henry Clark, Esq., Cowper House, Norton.
STROUD, GLOUCESTERSHIRE: T. S. Osborne, Esq., Lower Street.
SUNDERLAND: Rev. W. M. Teape, M.A., Salem Hill.
TAUNTON: Rev. R. C. W. Raban, Bishop's Hall Vicarage.
TUNBRIDGE WELLS: Rev. J. H. Townsend, D.D., St. Mark's, Herne Lodge.
UXBRIDGE: Rev. A. A. Harland, M.A., F.S.A., Harefield Vicarage.
WESTON-SUPER-MARE: Rev. Henry George Tomkins, Park Lodge.
WILLESDEN: The Ven. Archdeacon Atlay.
WOLVERHAMPTON: Mr. J. McD. Roebuck, 3, Darlington Street.
WORCESTER: Ven. Archdeacon Walters, Alvechurch.
YEOVIL: Rev. Abel Phillips, Hendford Vicarage.
YORK and SELBY: His Grace the Archbishop of York, *President of the Local Branch.* *Hon. Sec.*, J. T. Atkinson, Esq., Hayesthorpe, Holgate Hill.

HOLLAND.

OMMEREN: Rev. H. J. Schouten.

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*a*Aitchinson, Miss	0	10	6
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*a*Arbuthnot, Mrs. M. H. ..	2	2	0
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*a*Barnhill, Mrs.	1	0	0
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*a*Bartholomew, A. C., Esq. ..	1	1	0
*a*Bayley, Mrs.	1	0	0
*a*Beaufort, Miss	1	1	0
*a*Beaufort, W. M., Esq. ..	1	1	0
*a*Bell, Rev. F.	0	10	6
*a*Bell, Rev. James	0	10	6
Bellamy, Rev. Franklin (Don.)	0	5	0
*a*Bent, Mrs. Theodore.. ..	1	1	0
*a*Beynon, Mrs.	0	10	6
*a*Bisset, Captain	1	1	0
Carried forward	£25	14	0

	£	*s.*	*d.*
Brought forward	25	14	0
*a*Blandy, Mrs.	0	10	6
*a*Blandy, H. B., Esq.	0	10	6
*a*Block, C. E., Esq.	1	1	0
*a*Blundell, W. E., Esq. ..	0	10	6
*a*Boase, Henry, Esq.	2	0	0
*a*Bond, T. T., Esq.	1	1	0
*a*Borden, Rev. A. C.	0	10	6
*a*Borradaile, Mrs.	0	10	6
*a*Bowstead, Rev. A. K. ..	0	10	6
*a*Branfill, Major-General B. R.	0	10	6
*a*Brown, Miss Nessie	1	1	0
*a*Bull, Mrs.	1	1	0
*a*Burnley, James, Esq. ..	1	1	0
*a*Butterworth, R. H., Esq. ..	0	10	6
*a*Burdon, Rev. R. J.	1	1	0
*a*Buxton, Miss V. A.	1	1	0
*a*Buxton, I. F. Victor, Esq. ..	2	2	0
*a*Campbell, Mrs. Herbert ..	1	0	0
*a*Carey, Ven. Archdeacon Joseph	1	0	0
*a*Carpenter, Rev. F. W. ..	1	1	0
*a*Carpenter, Rev. J. E. ..	1	1	0
*a*Carr, Rev. Arthur	1	1	0
*a*Carr, Admiral H. J.	1	1	0
*a*Carr, Rev. F. W.	1	1	0
*a*Carruthers, David, Esq. ..	0	10	6
*a*Carter, Rev. Willoughby ..	1	1	0
*a*Cates, Arthur, Esq.	0	10	6
*a*Cave, Rev. Dr.	1	1	0
Carried forward	£51	15	0

	£	s.	d.
Brought forward	51	15	0
aCaw, Miss	1	1	0
aChallinor, J., Esq.	1	1	0
aChase, Rev. Dr. F. H. (three years)..	1	11	6
aChristian, Rev. Geo.	1	1	0
aClark, Miss M.	1	1	0
aClark, Rev. T. C.	0	10	6
aClarke, Mrs. F. R.	0	10	6
aClose, Rev. W. H.	1	1	0
aCobb, J. F., Esq.	0	10	6
aColfox, W., Esq., J.P. ..	1	1	0
aCook, General A. C.	1	0	0
aCoop, F., Esq.	1	1	0
aCooper, Rev. R.	1	1	0
aCorfe, Mrs.	2	2	0
aCorry, Viscount	1	1	0
aCoulson, Mrs.	1	1	0
aCourthope, Miss E. M. ..	1	0	0
aCowell, Lady	1	1	0
aCraigie, Rev. J. R.	1	1	0
aCrawford, Rev. Thomas ..	0	10	6
aCulshaw, Rev. G. H.	1	1	0
aCummings, J. Elder, Esq. ..	0	10	6
aCurling, Rev. I. I.	1	0	0
aCust, Miss A. M.	1	0	0
aDalzell, Rev. Dr.	1	1	0
aDartnell, George E., Esq. ..	1	1	0
aDavidson, Rev. James ..	0	10	6
aDavidson, Rev. T.	0	10	0
aDavies, Rev. J. Alden ..	0	10	6
aDavison, Alpheus, Esq. ..	1	0	7
aDewick, Rev. E. S.	1	1	0
aDodgson, J., Esq.	0	10	6
aDorph, William, Esq. ..	0	10	6
aDouglas, Rev. C. E.	0	10	6
aDouglas, Rev. G. C. M. ..	1	1	0
aDouglas, W. D. R., Esq. ..	1	1	0
aDowling, Rev. T. E.	0	10	6
aDrabwell, Miss H. A. ..	0	10	6
aDrummond, Colonel A. M. ..	1	0	0
aDuthoit, Rev. W.	1	1	0
aEaton, George, Esq.	0	10	6
aEddrup, Rev. Canon	0	10	6
aEdgell, Rev. M. S.	1	1	0
aEld, Rev. Francis	0	10	6
aEllison, The Misses	0	10	6
aEmbleton, Henry C., Esq. ..	1	1	0
aEvans, Mrs.	2	2	0
aEwen, Rev. Wm., D.D. ..	1	1	0
aEyre, Rev. E. G. Phipps ..	0	10	6
aFausset, Rev. Canon	0	10	6
aFawkes, Rev. Reg.	1	1	0
aFeatherstonhaugh, Rev. W.	0	10	6
aForbes, Rev. Daniel	0	10	6
aFleming, Rev. H. R.	0	10	6
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	£	s.	d.
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aFothergill, Miss	0	10	6
aFrench, John A., Esq. ..	1	1	0
aFreshfield, D. W., Esq. ..	1	1	0
aFreshfield, Rev. J. M. ..	1	1	0
aFurrer, Dr. K.	0	10	0
aGalpin, Rev. Francis W. ..	0	10	6
aGamble, Sir David	1	1	0
aGarnett, Miss.	1	0	0
aGarrett and Hayson, Messrs.	0	10	6
aGautier, Prof. Lucien ..	1	1	0
aGeden, Rev. A. S.	1	1	0
aGibb, J. G., Esq.	1	1	0
aGilmour, Matthew, Esq. ..	1	1	0
aGoldsmid, Lt.-Col. A. E. W.	1	1	0
aGompertz, Miss A.	1	0	0
aGrandmont, Dr. Alph ..	1	1	0
aGreer, Mrs. Thomas	1	1	0
aGrist, Rev. Gordon C. ..	0	10	6
aHack, Daniel, Esq.	0	10	6
aHalliday, General	1	1	0
aHanson, Rev. E. K.	1	1	0
aHankinson, J., Esq.	1	1	0
aHarben, Sir Henry	5	5	0
aHarrison, Miss M. J. ..	1	1	0
aHarrison, Fred, Esq. ..	0	10	6
aHarrison, Richard, Esq. ..	0	10	6
aHarvie, Mrs.	1	1	0
aHarvie-Brown, J. A., Esq. ..	0	10	6
aHaynes, Mrs.	1	1	0
aHayward, Archdeacon ..	1	1	0
aHenry, Rev. H. Jones ..	0	10	6
aHern, Mrs.	0	10	6
aHervey, Mrs. C.	1	1	0
aHewitson, Rev. J.	1	1	0
aHeywood, Arthur H., Esq. ..	5	5	0
aHicks, Miss K.	0	10	6
aHicks, S., Esq.	0	10	6
aHill, Rev. J. B.	0	10	6
aHindle, Miss E.	1	1	0
aHodges, Rev. H. C.	1	1	0
aHodgkin, T., Esq.	1	1	0
aHodgson, Shadworth H., Esq.	1	1	0
aHolland, Mrs. E. T.	0	10	0
aHolford, Christopher, Esq. ..	1	1	0
aHolford, H. P., Esq.	1	1	0
aHuddleston, W. H., Esq. ..	1	1	0
aHull, Prof. E.	1	0	0
aHutchinson, Canon C. B. ..	1	1	0
aIngall, Miss	0	5	0
aInge, Rev. W.	1	1	0
aJohnston, J. C. R., Esq. ..	1	1	0
aJoyce, Samuel, Esq. (three years)..	3	3	0
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	£	s.	d.
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aKean, Rev. James	0	10	6
aKemp, F. W. Hitchin, Esq..	1	1	0
aKerslake, Rev. E. K. ..	1	1	0
aKhitrowo, Herr B.	1	0	0
aKirby, R. L., Esq.	0	10	6
aKnox, Lady E. H.	0	10	0
aLane, Mrs. Mina	1	1	0
aLawrence, Rev. John ..	1	1	0
aLeader, R. E., Esq.	0	10	6
aLefroy, Lady	1	0	0
aLeishman, Rev. Dr. Thomas..	1	0	0
aLethbridge, Mrs. Frances ..	2	0	0
aLevesque, Prof. E.	0	10	5
aLey, Miss Sarah Jane ..	1	1	0
aLibrary, Bradford Free ..	1	1	0
aLibrary, Brighton Public ..	1	1	0
aLibrary, Canterbury, Dean and Chapter..	1	1	0
aLibrary, the Carnegie ..	1	1	0
aLibrary, Dartmouth College..	0	10	6
aLibrary of Congress	0	10	6
aLibrairie Fischbacher ..	1	1	0
aLibrary, the Glasgow Mitchell	0	10	6
aLibrary, Harvard College ..	0	10	6
aLibrary, Hull Public.. ..	0	10	6
aLibrary of the Imperial University	0	10	6
aLibrary, Leeds Public ..	0	10	6
aLibrary, Magdalen College ..	0	10	6
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aLibrary of Parliament ..	0	10	6
aLibrary, Peabody Institute ..	0	10	6
aLibrary, Pequot, Southport, Con.	0	10	6
aLibrary of Philadelphia ..	0	10	6
aLibrary, the University ..	0	10	6
aLibrary, Yale College ..	0	10	6
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aLlandaff, Archdeacon of ..	1	1	0
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aLongdon, Miss C. M. ..	0	10	6
aLongstaff, Mrs. M. L. ..	2	2	0
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aMcColl, Canon	1	1	0
aMcGregor, Wm., Esq. ..	1	1	0
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aMackinder, H. J., Esq. ..	1	1	0
aMcIntyre, D. M., Esq. ..	0	11	0
aMcLaughlin, J. F., Esq. ..	0	10	4
aMacNair, Rev. T. M. ..	1	0	0
aMadan, Miss P.	0	10	6
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	£	s.	d.
Brought forward	198	13	4
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aMaingay, General F. B. ..	1	1	0
aMainwaring, G. F., Esq. ..	0	10	6
aMallelieu, W., Esq.	1	1	0
aMarker, Mrs. G. M.	1	1	0
aMarling, Sir W. H., Bart. ..	0	10	6
aMarshall, Rev. J.	1	1	0
aMartin, Rev. John	0	10	6
aMartin, Rev. John	1	1	0
aMartin, R. B., Esq., M.P. ..	1	1	0
aMartin, R. F., Esq.	1	1	0
aMashiter, Robert, Esq. ..	1	1	0
aMatthews, J. M., Esq. ..	0	10	6
aMedway, Lord	1	1	0
aMethuen, Rev. J. P... ..	1	1	0
aMethuen, Rev. Paul E. O'B.	0	10	6
aMiddleton, Rev. F. M. ..	1	1	0
aMiland, Mrs.	0	10	6
aMiller, Rev. A.	0	10	0
aMinet, Miss	1	1	0
aMinet, Miss S.	1	1	0
"M. N." (Don.)	1	1	0
aMitchell, F. J., Esq... ..	1	1	0
aMoore, Canon J. H.	1	1	0
aMoore, Rev. John	0	10	6
aMorice, Mrs.	2	2	0
aMorton, H. J., Esq.	0	10	6
aMorris, Henry, Esq.	1	0	0
Morrison, Walter, Esq., M.P. (Don.)	5	0	0
aMoss, Dr. C. F. A.	1	1	0
aMühlan, Prof.	0	10	6
aMurray, Rev. D. S.	0	10	6
aMurray, Rev. J. O. F. ..	1	1	0
aMusgrave, Rev. Canon ..	1	0	0
aMynors, Mrs. B.	0	10	6
aNapier, Rev. Fred P. ..	1	1	0
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aNewman, Dr...	0	10	6
aNevill, William, Esq. ..	0	10	6
aNicholson, Sir Charles ..	1	0	0
aNicholson, E. A., Esq. ..	1	1	0
aNies, Rev. James B.	1	0	3
aNorman, Rev. D.	1	1	0
aNorris, Miss	1	1	0
aNorthbrook, Earl of	1	1	0
aNorthey, Rev. A. E... ..	1	1	0
aOhlson, F. R., Esq.	1	1	0
aOlseen, O. J., Esq.	0	10	6
aOutram, F. D., Esq.	0	10	6
aOrchardson, P., Esq... ..	1	1	0
aOrr, Wm., Esq.	0	10	6
aPaine, Prof. J. A.	0	10	6
aPaley, Hon. Mrs. C. E. C. ..	0	10	6
aPassmore, Dr. T. H.	1	1	0
Carried forward	£249	13	1

	£	s.	d.
Brought forward	249	13	1
*a*Pauli, Henry C., Esq. ..	0	10	6
*a*Payne, Miss F. Q.	1	0	0
*a*Peard, Miss F. M.	1	1	0
*a*Pearson, E., Esq.	1	0	0
*a*Peckover, Alexr., Esq. ..	0	10	0
*a*Peet, W. W., Esq.	1	0	0
*a*Petrie, W., Esq.	1	0	0
*a*Pilkington, Mrs. R.	1	1	0
*a*Pinney, F. W., Esq.	1	1	0
*a*Pitcairn, Rev. Dr. Lee ..	0	10	6
*a*Platnaner, H. M., Esq. ..	0	10	6
*a*Porter, Miss C.	0	10	6
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*a*Prat, Rev. Father	0	10	6
*a*Pressly, R. J., Esq.	0	10	6
*a*Price, Rev. Ed.	1	1	0
*a*Price, Rev. T.	0	10	6
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*a*Riggs, Prof. J. S., D.D. ..	0	10	6
*a*Rogers, Miss	0	10	6
*a*Rogers, Rev. Saltren. ..	0	10	6
*a*Rogers, F. J., Esq.	1	1	0
*a*Ronaldson, Rev. Wm. ..	0	10	6
*a*Roughsedge, Miss	1	1	0
*a*Rouse, Rev. G. H.	1	1	0
*a*Rouse, W. H. D., Esq. ..	0	10	6
*a*Rutter, Miss	1	1	0
*a*Ryder, Charles, Esq.	1	1	0
*a*Rylands, W. H., Esq. ..	1	1	0
*a*Salt, Miss Alice	0	10	6
*a*Salter, Rev. H. E.	0	10	6
*a*Sandly, W., Esq.	1	0	0
*a*Sands, Harold, Esq.	0	10	6
*a*Saunderson, Llewellyn, Esq.	1	1	0
*a*Savoy, Prof.	0	11	0
*a*Saxton, Major-General G. H.	1	1	0
*a*Scamell, J., Esq.	0	10	6
*a*Scott, Mrs. Lucy	1	0	0
*a*Scull, Miss	1	1	0
*a*Shaw, Martin, Esq.	0	10	6
*a*Sheppard, Mrs. S. G. ..	0	10	6
*a*Sidmouth, Viscount	1	1	0
*a*Sieveking, Dr. W.	0	10	6
*a*Smith, Miss E. Boucher ..	1	1	0
*a*Smith, Mrs. E.	1	1	0
*a*Smith, Rev. B. B. Woodd ..	1	1	0
*a*Smith, J. Doyle, Esq. ..	1	1	0
*a*Smyth, Colonel	1	1	0
*a*Spiers, R. P., Esq.	1	1	0
*a*Spielman, Isidore, Esq. ..	1	1	0
*a*Spilsbury, Mrs. B.	1	1	0
*a*Stanhope, B. L. S., Esq. ..	1	0	0
*a*Stanley, W. F., Esq.	1	1	0
Carried forward	£294	19	7

	£	s.	d.
Brought forward	294	19	7
*a*Stechert, Geo. E., Esq. (eight subscriptions)	4	4	0
*a*Stilwell, J. P., Esq.	1	1	0
*a*Stockings, Rev. H. M. ..	1	1	0
*a*Stracey, Rev. W. J.	1	1	0
*a*Stuart, Clarence E., Esq. ..	1	1	0
*a*Styan, Miss Ann	1	1	0
*a*Subzberger, Mayer, Esq. ..	0	10	6
*a*Sully, Henry, Esq.	0	10	6
*a*Sutherland, Miss Jane ..	0	10	6
*a*Swainson, Rev. J.	0	10	6
*a*Sydney, Archbishop of ..	1	1	0
*a*Tasker, Henry, Esq.	1	1	0
*a*Taylor, Miss Selina	1	1	0
*a*Taylor, Rev. J.	0	10	0
*a*Taylor, Robert, Esq.	1	1	0
*a*Thompson, A., Esq.	1	1	0
*a*Thompson, Geo. B., Esq. ..	0	10	6
*a*Thompson, John G., Esq. ..	1	1	0
*a*Thomson, Rev. Dr. J. E. H.	1	0	0
*a*Tod, Rev. W. M.	0	10	6
*a*Tolson, Miss S. M.	0	10	6
*a*Tomlinson, Walter, Esq. ..	2	0	0
*a*Tuckett, F. F., Esq.	1	0	0
*a*Turton, Major H. H. ..	1	0	0
*a*Tyler, Miss M.	0	10	6
*a*Urwick, Rev. Wm.	0	10	6
*a*Vane, Hon. and Rev. H. F. ..	1	1	0
*a*Wace, Rev. Henry, D.D. ..	1	1	0
*a*Waddell, T. B., Esq.	0	10	6
*a*Waddingham, T. J., Esq. ..	1	1	0
*a*Walford, Mrs.	1	1	0
*a*Walter, Miss	0	10	6
*a*Wark, Rev. David, M.A. ..	0	10	6
*a*Watson, Colonel C. M. ..	1	1	0
*a*Watson, G. S., Esq.	0	10	6
*a*Webster, J., Esq.	0	10	6
*a*Wedgewood, Mrs.	2	0	0
*a*Welland, Mrs. M.	2	2	0
*a*West, Rev. John	0	10	6
*a*Weston, Rev. F. G.	1	1	0
*a*Wetherall, Rev. H. E. ..	1	1	0
*a*Wharrie, Mrs. M. W. ..	1	1	0
*a*Whidborne, Miss A. M. ..	1	1	0
*a*Whidborne, Rev. J. F. ..	1	1	0
*a*Whitby, Rev. Canon.	0	10	6
*a*White, A., Esq.	0	10	6
*a*White, Rev. A. L.	1	0	0
*a*Whytlaw, R. A., Esq. ..	1	1	0
*a*Wigan, Mrs. A.	0	15	0
*a*Wigan, Rev. Sept.	1	1	0
*a*Williams, Captain C. S. ..	1	1	0
*a*Williams, Wm. L., Esq. ..	1	1	0
*a*Willis, Mrs. M. J.	1	1	0
*a*Wilson, Miss	1	1	0
Carried forward	£347	16	1

	£	s.	d.
Brought forward	347	16	1
*a*Wilson, T. Stracey, Esq., M.D.	1	1	0
*a*Winton, Rev. H. de	2	2	0
*a*Wolffe, David, Esq.	0	10	6
*a*Woodhouse, C. A., Esq. ..	1	1	0
*a*Wright, Miss	1	1	0
Carried forward	£353	11	7

	£	s.	d.
Brought forward	353	11	7
*a*Wright, W. Aldis, Esq. ..	2	2	0
*a*Wyndham, Rev. F. M. ..	0	10	6
*a*Yeates, J. Simpson, Esq. ..	0	10	6
*a*Yeates, Rev. G.	1	1	0
*a*Young, Miss	0	10	6
	£358	6	1

UNITED STATES, AMERICA.

Rev. Professor Theodore F. Wright, Ph.D., *Hon. General Secretary and Lecturer for the Fund.*

	£	s.	d.
Jan. 3.—By cash ..	1	10	0
Jan. 11.— „ ..	19	9	5
Feb. 12.— „ ..	25	8	9
Mar. 13.— „ ..	17	1	1
	£63	9	3

	Dols.
*a*Adams, Rev. J. W.	2·50
*a*Adams, Rev. W. W., D.D ..	2·50
*a*Barnes, E. W., Esq.	5·00
*a*Barrow, Miss R. N.	5·00
*a*Billheimer, Rev. T. C., D.D. ..	5·00
*a*Binney, Rev. John, D.D. ..	2·50
*a*Bradenbaugh, Mrs. S. E. ..	5·00
*a*Brown, Mrs. M. C.	5·00
*a*Bruckbawer, F., Esq. (1899 and 1900)	10·00
*a*Butler, Miss Virginia	5·00
*a*Carrier, Chas. F., Esq.	5·00
*a*Cochran, A. M. J., Esq. ..	5·00
*a*Cone, Mrs. S. B.	5·00
*a*Conarroe, Mrs. G. M.	5·00
*a*Cornell University Library ..	2·50
*a*Countermine, Rev. J. L. ..	2·50
*a*Coxe, C. B., Esq., jun. (1899 and 1900)	20·00
*a*Darling, Mrs. J. W.	5·00
*a*Dickinson, Miss M. A.	5·00
*a*Fisher, E. D., Esq.	5·00
*a*Francis, Jas. G., Esq.	5·00
*a*Goddard, M., Esq.	2·50
*a*Goodrich, Prof. F. S.	2·50
*a*Hall, Rev. F. J., D.D.	2·50
*a*Harlow, G. R., Esq.	5·00
Carried forward	$125·00

	Dols.
Brought forward	125·00
*a*Haskell, Miss R. A.	5·00
*a*Hoffman, Very Rev. E. A., D.D.	10·00
*a*Holmes, Daniel, Esq.	2·50
*a*Holmes, Rev. E. M.	2·50
*a*Hubbard, J. M., Esq.	10·00
*a*Hyvernat, Rev. H.	5·00
*a*Lasby, Rev. C. C., D.D. ..	5·00
*a*Lawrence, Miss M. C.	5·00
*a*Little, Prof. G. T.	5·00
*a*Lowry, Miss R.	5·00
*a*Lyon, Prof. D. G.	2·50
*a*McClintock, A. H., Esq. ..	5·00
*a*Mitchell, H. B., Esq.	5·00
*a*Nevin, Rev. J. C., D.D. ..	5·00
*a*Newton Theological Seminary ..	2·50
*a*Pearson, Mrs. E. H.	5·00
*a*Pierrepont, H. E., Esq. ..	10·00
*a*Public Library, Los Angeles ..	2·50
*a*Rendall, Prof. I. N.	5·00
*a*Schilling, Rev. Godfrey ..	2·50
*a*Smith, Rev. R. C., D.D. ..	2·50
*a*Springfield City Library ..	2·50
*a*Tincker, Miss H.	5·00
*a*Vaux, George, Esq.	10·00
*a*Winans, W. P., Esq.	2·50
*a*Wright, Rev. Prof. Theo. F. ..	10·00
*a*Zabriskie, Miss N. L.	5·00
Sales of maps, books, &c. ..	40·72
	$303·22

Received through Rev. H. B. Waterman, D.D., Chicago.

	Dols.
*a*Blackstone, W. E., Esq. ..	2·50
*a*Garrett Biblical Institute ..	2·50
*a*Revell, F. H., Esq.	2·50
Total for U.S.A.	$310·72

ABERDEEN.

Miss Mary Forbes, *Hon. Sec.*

	£	s.	d.
March 15.—By cash ..	4	0	0
Collection expenses ..	0	3	6
	£4	3	6

	£	s.	d.
*a*Burnett, C. J., Esq.	0	10	6
*a*Forbes, Miss Mary	0	10	6
*a*Henderson, Sir William, LL.D.	1	1	0
*a*Stewart, Sir David	0	10	0
*a*Stewart, Dr.	0	10	6
*a*Stephenson, Wm., Esq., M.D.	0	10	6
*a*Thompson, George, Esq. ..	0	10	6
	£4	3	6

ADELAIDE (AUSTRALIA).

Rev. F. W. Cox, *Hon. Sec.*

Jan. 15.—By cash .. £4 14*s.* 6*d.*

	£	s.	d.
*a*Cox, Rev. F. W.	0	10	6
*a*Gordon, John, Esq.	1	1	0
*a*Lyall, Jas., Esq.	0	10	6
*a*Mullens, Josiah, Esq. ..	1	1	0
*a*Murray, D., Esq.	1	1	0
*a*Torr, Dr. W. G.	0	10	6
	£4	14	6

APPLEDORE.

Rev. Chas. Harris, M.A., *Hon. Sec. and Lecturer for the Fund.*

Jan. 18.—By cash .. £2 2*s.* 0*d.*

	£	s.	d.
*a*Dronsfied, Samuel, Esq. ..	1	1	0
*a*Hague, T. S., Esq., C.A., J.P.	1	1	0
	£2	2	0

BATH.

General Warren Walker, R.E., *Hon. Sec.*

Jan. 24.—By cash .. £4 4*s.* 0*d.*

	£	s.	d.
*a*Austin, Miss Rose	1	1	0
*a*Farewell, Major-General ..	1	1	0
*a*Hewitt, Hon. Miss A. G. ..	0	10	6
*a*Walker, General G. W., R.E.	1	1	0
*a*Winwood, Rev. H. H. ..	0	10	6
	£4	4	0

ASHBURTON.

Rev. H. J. Barton Lee, *Hon. Sec.*

March 16.—By cash .. £1 1*s.* 0*d.*

	£	s.	d.
*a*Amery, J. S., Esq. (1898 and 1899)	1	1	0

BELFAST.

Sir Wm. Q. Ewart, Bart., *Hon. Sec.*

March 16.—By cash .. £22 2*s.* 0*d.*

	£	s.	d.
*a*Crawford, Wm., Esq., Mount Randal, Malone Road ..	1	0	0
*a*Cuming, Prof., M.D., Wellington Place	1	0	0
*a*Cuthbert, Joseph, Esq., J.P., Mount Donard, Windsor Park	0	10	6
*a*Dixon, Sir Daniel, D.L., Ballymenoch House, Holywood ..	1	0	0
*a*Dunleath, The Right Hon. Lord, Ballywalter Park ..	1	0	0
*a*Ewart, Isabella Lady, Schomberg, Strandtown	1	0	0
*a*Ewart, Miss, Schomberg, Strandtown	1	0	0
*a*Ewart, Sir Wm. Q., Bart., Glenmachan, Strandtown ..	1	0	0
*a*Ewart, Lady, Glenmachan, Strandtown	1	0	0
*a*Hamilton, Rev. Thomas, D.D., President, Queen's College..	0	10	6
*a*Harland, Lady, Glenfarne Hall, Enniskillen	1	0	0
*a*Inverclyde, The Right Hon. Lord, Castle Weymss, Scotland	1	0	0
*a*Jaffe, Sir Otto, J.P., Donegall Square, South	1	0	0
*a*Johnston, S. A., Esq., J.P., Dalriada	1	0	0
*a*MacLaine, George L., Esq., Wandsworth Villas, Strandtown	1	1	0
*a*McBride, Messrs. R. and Co., Ormeau Avenue	1	0	0
*a*McNeile, H. H., Esq., D.L., Parkmount	1	0	0
*a*Musgrave, Sir James, Bart., D.L., Drumglass House ..	1	0	0
*a*Reade, R. H., Esq., J.P., Wilmont, Dunmurry ..	1	0	0
*a*Richardson, Bros. and Co., Messrs., Donegall Place ..	1	0	0
Carried forward	£19	2	0

	£	s.	d.
Brought forward	19	2	0
*a*Sinclair, The Right Hon. Thomas, D.L., Hopefield ..	1	0	0
*a*Workman, John, Esq., J.P., Lismore, Windsor Avenue..	1	0	0
*a*Young, The Right Hon. John, D.L., Galgorn Castle, Ballymena	1	0	0
	£22	2	0

BURNLEY.

Alfred Strange, Esq., J.P., *Hon. Sec.*

March 6.—By cash .. £1 0*s.* 6*d.*

	£	s.	d.
*a*Foden, Harold, Esq... ..	0	10	6
*a*Parker, Canon, M.A... ..	0	10	0
	£1	0	6

CHARMOUTH.

Rev. Chas. Druitt, *Hon. Sec.*

	£	s.	d.
*a*Druitt, Rev. Chas.	1	1	0

CHELMSFORD.

Rev. H. Kingsford Harris, *Hon. Sec.*

	£	s.	d.
*a*Harris, Rev. H. Kingsford (for 1898 and 1899)	2	2	0

CHELTENHAM.

Dr. E. T. Wilson, *Hon. Sec.*

Jan. 25.—By cash .. £7 1*s.* 6*d.*

	£	s.	d.
*a*Birchall, Miss..	1	1	0
*a*Browne, Miss Wylde.. ..	0	10	6
*a*Ducie, Right Hon. Earl of ..	5	0	0
*a*Wilson, Dr. E. T.	0	10	0
	£7	1	6

COLERAINE.

W. J. Baxter, Esq., J.P., M.C.P.S.I., *Hon. Sec.*

Jan. 29.—By cash .. £2 12*s.* 6*d.*

	£	s.	d.
*a*Baxter, W. J., Esq., J.P., M.C.P.S.I.	0	10	6
*a*Coyle, Mrs.	0	10	6
*a*Taylor, Sir R. A., J.P. ..	1	1	0
*a*Wilson, Geo., Esq.	0	10	6
	£2	12	6

CHRISTCHURCH (NEW ZEALAND).

H. R. Webb, Esq., *Hon. Sec.*

	£	s.	d.
*a*Webb, H. R., Esq.	0	10	6

DUNDEE.

Alex. Scott, Esq., *Hon. Sec.*

Jan. 16.—By cash .. £1 11*s.* 0*d.*

	£	s.	d.
*a*Scotland, Rev. James S. ..	1	1	0
*a*Scott, Alex., Esq.	0	10	0
	£1	11	0

EDINBURGH.

Geo. Harvey Johnston, Esq., *Hon. Sec.*

	£	s.	d.
March 19.—By cash ..	60	13	0
Postage ..	0	8	6
	£61	1	6

	£	s.	d.
*a*Agnew, Colonel	1	1	0
*a*Alexander, Mrs. B.	1	0	0
*a*Alison, Miss	0	10	6
*a*Barbour, A. H. F., Esq., M.D.	1	0	0
*a*Bartholomew, John G., Esq.	0	10	0
*a*Bell, Mrs. H. Glassford ..	0	10	0
*a*Bonar, Miss	0	10	6
*a*Bonar, Horatius, Esq., W.S.	0	10	6
*a*Brown, J. T., Esq.	1	1	0
*a*Brown, Rev. J. Wood ..	0	10	6
*a*Brown-Douglas, Miss A. ..	0	10	6
*a*Brown-Douglas, Miss E. ..	0	10	6
*a*Bryce, Wm., Esq., M.D. ..	0	10	6
*a*Cadell, J. J., Esq.	1	1	0
*a*Charteris, Rev. A. H., D.D...	1	1	0
*a*Cook, Miss	0	10	6
*a*Dalgleish, J. J., Esq. ..	0	10	6
*a*Dalgleish, Lawrence, Esq. ..	0	10	6
*a*Davidson, Rev. Geo., B.Sc. ..	0	10	6
*a*Douglas, Rev. W. H. Brown, B.A.	0	10	6
*a*Duncan, Miss..	0	5	0
*a*Duns, Rev. Prof., D.D. ..	0	10	6
*a*Edinburgh Public Library ..	1	1	0
*a*Elliot, Andrew, Esq... ..	0	10	6
*a*Ford, Mrs. W. J.	1	1	0
*a*Forlong, General	0	10	0
*a*Forrester, Henry, Esq. ..	1	1	0
*a*Galloway, W. F., Esq. ..	1	1	0
*a*Gall and Inglis, Messrs. ..	1	1	0
*a*Gartshore, Miss Murray ..	1	1	0
Carried forward	£21	12	0

	£	s.	d.
Brought forward	21	12	0
*a*G. C.	1	0	0
*a*Gibson, James P., Esq. ..	0	10	6
*a*Henderson, Miss	0	10	6
*a*Howden, John A., Esq. ..	1	1	0
*a*Hunter, Mrs.	0	2	6
*a*Inglis, Rev. James W. ..	0	10	6
*a*Jamieson, J. A., Esq. ..	0	10	6
*a*Jeffrey, Mrs. D.	1	0	0
*a*Johnston, Geo. Harvey, Esq.	1	1	0
*a*Kalley, Mrs.	0	10	6
*a*Kennedy, Rev. Prof., D.D. ..	1	1	0
*a*Kennedy, John, Esq... ..	1	0	0
*a*Luke, Rev. Alex.	0	10	6
*a*McCandlish, J. M., Esq. ..	1	1	0
*a*MacDougall, Mrs. and Miss..	1	1	0
*a*McDougall, Rev. D.	0	10	6
*a*Mackenzie, Miss	2	0	0
*a*Maclagan, Sir Douglas ..	1	1	0
*a*Maclagan, R. E., Esq., M.D.	0	10	0
*a*McMicking, Miss	1	1	0
*a*Mill, Peter, Esq.	0	10	6
*a*Muir, Rev. R. H.	1	1	0
*a*Nelson, Messrs. Thomas & Son	1	0	0
*a*New College (per Rev. J. Kennedy)	0	10	6
*a*Norrie, J. R., Esq.	0	10	6
*a*Padon, Wm., Esq.	0	10	6
*a*Rainy, Rev. Principal, D.D...	0	10	6
*a*Robertson, Wm., Esq. ..	0	10	6
*a*Robson, Wm., Esq.	0	5	0
*a*Rogerson, J. J., Esq., LL.D...	0	10	0
*a*Scott, Miss M. S.	1	0	0
*a*Scott, Rev. David	0	10	6
*a*Simpson, James, Esq. ..	1	1	0
*a*Simpson, Prof., M.D. ..	1	1	0
*a*Skirving, A., Esq.	1	0	0
*a*Somerville, David, Esq. ..	1	1	0
*a*Stalker, R. B., Esq.	0	10	6
*a*Stevenson, The Misses ..	1	0	0
*a*Stevenson, Miss M. A. M. ..	0	10	6
*a*Stewart, Mrs. A.	1	1	0
*a*Stuart, Mrs.	0	10	6
*a*Sydserff, T. Buchan, Esq. ..	0	10	6
*a*Teape, Rev. Dr.	0	10	0
*a*Teape, Rev. W. M.	0	10	0
*a*Thin, James, Esq.	0	10	6
*a*Thomson, Rev. Dr. Andrew..	0	2	6
*a*Union Mutual Association ..	0	10	6
*a*Usher, Messrs. Andrew & Co.	0	10	6
*a*Usher, Sir John, of Norton ..	1	0	0
*a*Walker, Rev. Norman L. ..	0	10	6
*a*Whyte, Rev. Alex., D.D. ..	1	0	0
*a*Wilson, Rev. J. H., D.D. ..	0	5	0
*a*Younger, Robert, Esq. ..	0	10	6
*a*Younger, Messrs. Wm. & Co.	1	1	0
	£61	1	6

FROME.

Henry Thompson, Esq., *Hon. Sec.*

Jan. 17.—By cash .. £3 8*s.* 3*d.*

	£	s.	d.
*a*Daniel, G. A., Esq.	0	10	6
*a*Daniel, Rev. W. E.	0	10	6
*a*Flatman, Mrs.	0	10	6
*a*Harvey, W. B., Esq... ..	0	10	6
*a*Thompson, Henry, Esq. ..	0	15	9
*a*Wiltshire, G. W., Esq. ..	0	10	6
	£3	8	3

GALASHIELS.

Kenneth Cochrane, Esq., *Hon. Sec.*

Jan. 22.—By cash .. £0 10*s.* 6*d.*

	£	s.	d.
*a*Cochrane, Archibald, Esq. ..	0	10	6

GLASGOW.

Rev. Prof. Wm. P. Dickson, D.D., Right Rev. Donald Macleod, D.D., Rev. Prof. George Adam Smith, D.D., *Hon. Secs.*

James Glen, Esq., 194, St. Vincent Street, *Hon. Treas.*

	£	s.	d.
March 23.—By cash ..	25	7	0
Postage ..	0	3	6
	£25	10	6

	£	s.	d.
*a*Allan, Robert S., Esq. ..	1	1	0
*a*Bell, Sir James	2	2	0
*a*Buchanan, Colonel Sir D. C. R. Carrick, K.C.B.	1	1	0
Cuthbertson, Sir J. Neilson (Don.)	0	10	0
*a*Daly, Rev. J. Fairley, B.D...	0	10	6
*a*Dickson, Rev. Prof. Wm. P., D.D.	0	10	6
*a*Duncan, Walter, Esq. ..	1	0	0
*a*Forrest, Rev. D. W., M.A. ..	0	10	6
*a*Free Church College Library	1	1	0
*a*Glen, James, Esq.	1	1	0
*a*Gow, Leonard, Esq.	1	1	0
*a*Harrison, Right Rev. Bishop	1	1	0
*a*Honeyman, Michael, Esq. ..	0	10	0
*a*Kerr, Wm., Esq.	1	1	0
Macara, M., Esq. (Don.) ..	1	0	0
*a*McCreath, James, Esq. ..	1	1	0
*a*McEwan, Rev. A. R., D.D. ..	1	1	0
Carried forward	£16	2	6

	£	s.	d.
Brought forward	16	2	6
aMacleod, Right Rev. Donald, D.D.	1	1	0
aMarwick, Sir James D. ..	1	0	0
aMitchell, G. A., Esq... ..	0	10	6
aNapier, James S., Esq. ..	1	1	0
aRobertson, Rev. Prof., D.D...	1	1	0
aSmith, Rev. Prof. G. Adam, D.D.	1	1	0
aStuart, Prof. Moody	1	1	0
aTaylor, Rev. Walter Ross ..	1	1	0
aWeir, Rev. T. H.	0	10	6
aYellowless, D., Esq., M.D. LL.D...	1	1	0
	£25	10	6

GREENOCK.

Rev. Hugh Macmillan, D.D., LL.D., *Hon. Sec.*

	£	s.	d.
aMacmillan, Rev. Hugh, D.D., LL.D.	0	10	6

HITCHIN.

J. Pollard, Esq., *Hon. Sec.*

March 7.—By cash .. £4 4*s.* 0*d.*

	£	s.	d.
aBathurst, Archdeacon ..	0	10	6
aGatward, Miss F.	0	10	6
aPollard, J., Esq.	0	10	6
aPriest, T., Esq.	0	10	6
aRansom, W., Esq.	1	1	0
aSeevohm, F., Esq.	1	1	0
	£4	4	0

HULL.

Wm. Botterill, Esq., *Hon. Sec.*

March 15.—By cash .. £4 4*s.* 0*d.*

	£	s.	d.
aBotterill, Wm., Esq...	0	10	6
aBrown, John, Esq.	0	10	6
aCussons, Wm., Esq.	0	10	6
aHolmes, S. H., Esq., J.P. ..	0	10	6
aHolmes, Thos. B., Esq., J.P.	1	1	0
aHull Subscription Library ..	0	10	6
aSharp, I. Fox, Esq.	0	10	6
	£4	4	0

INVERNESS.

D. S. Chisholm, Esq., *Hon. Sec.*

Dec. 28.—By cash .. £0 13*s.* 0*d.*

	£	s.	d.
aChisholm, D. S., Esq. ..	0	10	6
Mills, Mrs. Howie (Don.) ..	0	2	6
	£0	13	0

JERUSALEM.

Dr. Percy D'Erf Wheeler, *Hon. Sec.*

Feb. 15.—By cash .. £13 2*s.* 6*d.*

	£	s.	d.
aAshworth, Miss	1	1	0
aBeckholt, Mr...	0	10	6
aBramble, Colonel	1	1	0
aBroadbent, Dr. R.	1	1	0
aDavies, W. Howell, Esq. ..	1	1	0
aDuncan, John, Esq.	1	1	0
aGoodall, J., Esq.	1	1	0
aLloyd, J. W., Esq.	1	1	0
aLye, W. T., Esq.	0	10	6
aMacpherson, Miss	0	10	6
aWay, E., Esq...	1	1	0
aWheeler, Dr. Percy D'Erf ..	0	10	6
Half proceeds of Lecture by Dr. Wheeler to Dr. Lunn's Party	2	12	6
	£13	2	6

LIVERPOOL.

A. B. Thorburn, Esq., *Hon. Sec.*
F. A. Agnew, Esq., *Hon. Treas.*

March 21.—By cash .. £13 1*s.* 6*d.*

	£	s.	d.
aAgnew, T. F. A., Esq. ..	1	1	0
aAllan, R. G., Esq.	0	10	6
aArmour, Rev. Canon.. ..	0	10	6
aBenas, Baron L., Esq. ..	0	10	6
aBrancker, John, Esq. ..	1	1	0
aGair, H. W., Esq.	1	1	0
aHadwen, Miss (1900 and 1901)	1	1	0
aHyslop, Miss	1	0	0
aMadden, Rev. Archdeacon ..	0	10	6
aMoore, J. Murray, Esq., M.D.	0	10	6
aPaton, A. B., Esq.	1	1	0
aPhillip, George, Esq. ..	1	1	0
aPhillip, Son, and Nephew, Messrs.	1	1	0
aSchor, Rev. S. (1899 and 1900)	1	1	0
aThorburn, A. B., Esq. ..	1	1	0
	£13	1	6

LEDBURY.

Rev. F. S. Stooke-Vaughan, *Hon. Sec.*

Feb. 13.—By cash .. £1 11*s.* 0*d.*

	£	*s.*	*d.*
*a*Ley, Mrs.	0	10	0
*a*Stooke-Vaughan, Rev. F. S. (for 1898 and 1899).. ..	1	1	0
	£1	11	0

LONDONDERRY.

Alex. McVicker, Esq., *Hon. Sec.*

	£	*s.*	*d.*
*a*McVicker, Alex., Esq. ..	0	10	6

MANCHESTER.

Rev. W. F. Birch, M.A., *Hon. Sec.*
C. J. Heywood, Esq., *Treasurer.*

March 15.—By cash.. £11 11*s.* 0*d.*

	£	*s.*	*d.*
*a*Armistead, Richard, Esq. ..	0	10	6
*a*Bellhouse, Ernest, Esq. ..	1	1	0
*a*Birch, Rev. W. F.	1	1	0
*a*Chorlton, James, Esq. ..	0	10	6
*a*Heywood, C. J., Esq. ..	1	1	0
*a*Robinson, John, Esq. ..	2	2	0
*a*Robinson, Oswald, Esq. ..	1	1	0
*a*Robinson, Robert, Esq. ..	1	1	0
*a*Rymer, Thos., Esq.	1	1	0
*a*Rymer, T. H., Esq.	1	1	0
*a*Sharp, The Misses	1	1	0
	£11	11	0

MONTREAL (CANADA).

Rev. Prof. G. Abbott-Smith, *Hon. Sec.*

Jan. 8.—By cash .. £4 2*s.* 1*d.*

	Dols.
*a*Hague, Geo., Esq. (1898–'99)	10·00
*a*Heaton, F. R., Esq. (1898–'99)	5·00
*a*Rexford, Rev. E. I. (1898–'99)	5·00
	$20·00

OMMEREN (HOLLAND).

Rev. H. J. Schouten, *Hon. Sec.*

March 6.—By cash .. £1 11*s.* 6*d.*

	£	*s.*	*d.*
*a*Brock, Rev. J. J. van den ..	0	10	6
*a*Houstma, Prof. Dr. M. Th..	0	10	6
*a*Schouten, Rev. L.	0	10	6
	£1	11	6

PLYMOUTH.

John Shelly, Esq., *Hon. Sec.*

By cash.. .. .. £4 3*s.* 0*d.*

	£	*s.*	*d.*
Sales of books, &c., at exhibition	3	12	6
*a*Shelly, John, Esq.	0	10	6
	£4	3	0

PLYMOUTH.

H. B. S. Woodhouse, Esq., *Hon. Sec.*

Jan. 29.—By cash .. £2 12*s.* 6*d.*

	£	*s.*	*d.*
*a*Brown, J. P., Esq.	0	10	6
*a*Mitchell, T. H., Esq... ..	0	10	6
*a*Woodhouse, H. B. S., Esq. ..	1	1	0
Woodhouse, Mrs. (Don.) ..	0	10	6
	£2	12	6

SALISBURY.

J. Lardner Green, Esq., M.R.C.S., F.R.M.S., *Hon. Sec.*

March 21.—By cash .. £7 8*s.* 6*d.*

	£	*s.*	*d.*
*a*Bernard, Rev. Chancellor ..	1	1	0
*a*Bourne, Rev. Dr.	0	10	6
*a*Brown Street Sunday School	0	10	6
*a*Burrows, Miss	0	2	6
*a*Green, J. Lardner, Esq. ..	0	10	6
*a*Griffin, Frederic, Esq. ..	0	10	6
*a*Hutchings, Rev. Canon ..	1	0	0
*a*Myers, Rev. Chas.	0	10	6
*a*Powell, Miss	0	10	6
*a*Pye-Smith, E. F., Esq. ..	0	10	9
*a*Rawlence, Ernest A., Esq. ..	1	1	0
*a*Warre, Rev. Canon	0	10	6
	£7	8	6

SHREWSBURY.

Rev. C. H. Drinkwater, *Hon. Sec.*

Feb. 22.—By cash .. £0 10*s.* 6*d.*

	£	*s.*	*d.*
*a*Nicolls, Miss	0	10	6

CKTON-ON-TEES.

Henry Clark, Esq., *Hon. Sec.*

March 6.—By cash .. £1 1*s.* 0*d.*

	£	*s.*	*d.*
*a*Wrightson, T., Esq.	1	1	0

SUNDERLAND.

Rev. W. M. Teape, *Hon. Sec.*

March 16.—By cash .. £0 10*s.* 6*d.*

	£	*s.*	*d.*
*a*Blumer, Mrs. Percy	0	10	6

SWANSEA.

Joseph Hall, Esq., *Hon. Sec.*

March 17.—By cash .. £2 2*s.* 0*d.*

	£	*s.*	*d.*
*a*Hall, Joseph, Esq. (1898 and 1899)	1	1	0
*a*Smith, Rev. Chancellor (1898 and 1899)	1	1	0
	£2	2	0

UXBRIDGE.

Rev. A. A. Harland, *Hon. Sec.*

	£	*s.*	*d.*
*a*Harland, Rev. A. A.	0	10	6

SYRIA.

E. G. Freyer, Esq., *Hon. Sec.*

Feb. 20.—By cash .. £4 14*s.* 9*d.*

	£	*s.*	*d.*
*a*Crawford, Rev. John, D.D. ..	0	10	6
*a*Phillips, Rev. J. G.	0	10	6
*a*Richards, W. S., Esq. ..	1	1	0
*a*Segall, Rev. J.	0	10	6
*a*Soutar, Rev. John	1	0	0
Sales of Books	1	2	3
	£4	14	9

WILLESDEN.

Ven. Archdeacon Atlay, *Hon. Sec.*

	£	*s.*	*d.*
*a*Atlay, Ven. Archdeacon ..	0	10	6

YEOVIL.

Rev. Abel Phillips, *Hon. Sec.*

Jan. 13.—By cash .. £1 1*s.* 0*d.*

	£	*s.*	*d.*
*a*Benson, C. B., Esq.	0	10	6
*a*Duncan, Miss	0	10	6
	£1	1	0

SUMMARY OF RECEIPTS.

From December 28th, 1899, to March 23rd, 1900.

	£	*s.*	*d.*
Annual Subscriptions and Donations	358	6	1
Annual Subscriptions from Local Societies	272	4	9
Proceeds of Lecture	2	12	6
Total Sales of Books, Maps, and other Publications ..	131	19	10
	£765	3	2

SUMMARY OF LOCAL SOCIETIES.

(Acknowledged in detail under special heading.)

	Sales of Books, Maps, &c.			Lectures.			Subscriptions and Donations.		
	£	s.	d.	£	s.	d.	£	s.	d.
Aberdeen		—			—		4	0	0
Adelaide (Australia) ..		—			—		4	14	6
Appledore		—			—		2	2	0
Ashburton		—			—		1	1	0
Bath		—			—		4	4	0
Belfast		—			—		22	2	0
Burnley		—			—		1	0	6
Charmouth		—			—		1	1	0
Chelmsford		—			—		2	2	0
Cheltenham		—			—		7	1	6
Christchurch (New Zealand)		—			—		0	10	6
Coleraine		—			—		2	12	6
Dundee		—			—		1	11	0
Edinburgh		—			—		60	13	0
Frome		—			—		3	8	3
Galashiels		—			—		0	10	6
Glasgow		—			—		25	7	0
Greenock		—			—		0	10	6
Hitchin		—			—		4	4	0
Hull		—			—		4	4	0
Inverness		—			—		0	13	0
Jerusalem		—		2	12	6	10	10	0
Ledbury		—			—		1	11	0
Liverpool		—			—		13	1	6
Londonderry		—			—		0	10	6
Manchester		—			—		11	11	0
Montreal (Canada)		—			—		4	2	1
Ommeren (Holland) ..		—			—		1	11	6
Plymouth	3	12	6		—		0	10	6
Plymouth		—			—		2	12	6
Salisbury		—			—		7	8	6
Shrewsbury		—			—		0	10	6
Stockton-on-Tees		—			—		1	1	0
Sunderland		—			—		0	10	6
Swansea		—			—		2	2	0
Syria	1	2	3		—		3	12	6
United States of America ..	8	4	10		—		55	4	5
Uxbridge		—			—		0	10	6
Willesden		—			—		0	10	6
Yeovil		—			—		1	1	0
	£12	19	7	£2	12	6	£272	4	9

LIST OF HONORARY SECRETARIES AND LOCAL ASSOCIATIONS.

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ADELAIDE: Rev. F. W. Cox, Wakefield Street East.
NEW SOUTH WALES: Rev. Alfred George Stoddart, Southern Forest.
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CHINA.

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SEOUL: Alex. Kenmure, Esq.

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HULL: W. Botterill, Esq., 23, Parliament Street.
ISLE OF WIGHT: Rev. W. Goldsborough-Whittam, Ryde.
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LEDBURY: Rev. F. Salter Stooke-Vaughan, Wellington Heath Vicarage.
LEEDS: James Yates, Esq., Public Librarian.
LICHFIELD: Herbert M. Morgan, Esq.
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NOTTINGHAM: Rev. V. J. Higgins, Awsworth Vicarage.
OXFORD: Rev. G. W. Thatcher, M.A., B.D., Mansfield College.
PLYMOUTH: J. Shelly, Esq., and H. B. S. Woodhouse, Esq.
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STEVENTON: Rev. H. Hamilton Jackson, Milton Rectory, Berks.
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TAUNTON: Rev. R. C. W. Raban, Bishop's Hall Vicarage.
TUNBRIDGE WELLS: Rev. J. H. Townsend, D.D., St. Mark's, Herne Lodge.
UXBRIDGE: Rev. A. A. Harland, M.A., F.S.A., Harefield Vicarage.
WESTON-SUPER-MARE: Rev. Henry George Tomkins, Park Lodge.
WILLESDEN: The Ven. Archdeacon Atlay.
WOLVERHAMPTON: Mr. J. McD. Roebuck, 3, Darlington Street.
WORCESTER: Ven. Archdeacon Walters, Alvechurch.
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HOLLAND.

OMMEREN: Rev. H. J. Schouten.

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CHRISTCHURCH: H. R. Webb, Esq., Tewepu, Merivale.
DUNEDIN: Herbert Webb, Esq., Eldon Chambers.
NELSON: Colonel Branfill.

PALESTINE.

JERUSALEM: Percy D'Erf Wheeler, Esq., M.D., F.R.C.S.
SYRIA: E. G. Freyer, Esq., *Hon. Sec.* and *Hon. Local Treasurer*, Beirut.

SCOTLAND.

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GALASHIELS: Kenneth Cochrane, Esq., Newfaan.
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HAMILTON: Rev. Thomas M. B. Paterson, Ardenclutha.
INVERNESS: D. S. Chisholm, Esq.
KIRKCALDY: Henry Morton Barnett, Esq., 17, Townsend Place.
MILLPORT: Rev. Alex. Walker, Millburn.
PERTH: Rev. P. A. Gordon Clark, West Free Church.
PORT GLASGOW: Rev. W. W. Beveridge.

TASMANIA.

HOBART: Lieut.-Colonel Ernest Townshend Wallach, General Staff.

U.S. AMERICA.

Rev. Professor Theo. F. Wright, Ph.D., 42, Quincy Street, Cambridge, Mass.,
Honorary General Secretary and Lecturer for the Fund.

ALABAMA: Rev. J. M. P. Otts, D.D., LL.D., Greensboro'.
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CONNECTICUT: Prof. Edwin Knox Mitchell, D.D., Theological Seminary, Hartford.
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President G. E. Merrill, D.D., Colgate University, Hamilton.
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Prof. T. C. Billheimer, D.D., Gettysburg.
RHODE ISLAND: Prof. Charles F. Kent, Ph.D., Brown University, Providence.
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WALES.

ABERGAVENNY: Rev. Fred W. G. Whitfield, Vicar of.
BANGOR: Professor T. Witton Davies, B.A., Ph.D., "Bryn Haul."
CARDIFF: Mrs. Melville, School for the Deaf and Dumb.
GLYNNEATH, S.W.: Rev. J. L. Thomas, M.A., Aberpergwm.
LAMPETER: The Rev. L. J. M. Bebb, Principal of St. David's College.
LLANDUDNO: Rev. C. T. Ashley.
MOUNTAIN ASH, S.W.: Rev. Owen Jones, Maes-Caradoc.
SWANSEA: Joseph Hall, Esq., Grosvenor House.

The Committee will be glad to communicate with ladies and gentlemen willing to help the Fund as Honorary Secretaries.

LIST OF DONATIONS AND SUBSCRIPTIONS.

FROM MARCH 24TH TO JUNE 23RD, 1900.

a denotes Annual Subscriber.

*** If any omission or mistake be observed in the following lists, the Secretary will be very glad to be informed of it, and will rectify the error in the next *Quarterly Statement*.

	£	*s.*	*d.*
*a*Angus, C. J., Esq.	0	10	0
*a*Atkinson, Rev. Dr. E. ..	1	1	0
*a*Baring, Rev. F. H.	0	10	6
*a*Barker, E. S., Esq.	0	10	6
*a*Burlingham, R., Esq. ..	1	1	0
*a*Burt, C. W., Esq.	1	1	0
*a*Carey, Major-General W. D.	1	1	0
*a*Carver, John, Esq.	1	1	0
*a*Chubb, H., Esq.	0	10	6
*a*Cobham, Alex. W., Esq. ..	1	1	0
*a*Cockle, Rev. Francis T. ..	0	10	6
*a*Courtier, Henry, Esq. ..	0	10	6
Courtier, Henry, Esq. (Don.)	0	10	6
*a*Cranbrook, Right Hon. Earl	1	1	0
*a*Crawford, Miss G. A. ..	1	1	0
*a*Cross, Miss E.	1	0	0
*a*Cross, Miss M.	1	0	0
*a*Davies, Major A. M... ..	0	10	6
*a*Downward, Miss H.	0	10	6
*a*Duncan, J. N., Esq.	1	1	0
*a*Evans, Mrs.	1	0	0
*a*Evill, Rev. W. E.	1	1	0
*a*Fisher, Mrs. J. C.	1	1	0
*a*Fitzpatrick, Miss M. A. ..	0	10	6
*a*Foster, Richard, Esq. ..	2	2	0
*a*Freer, Mrs.	0	10	6
*a*Fry, Lewis, Esq., M.P. ..	3	3	0
*a*Fry, Sir Edward	1	1	0
*a*Fitch, Rev. J. A. .. .. } *a*Grant, Henry, Esq. .. .. }	1	0	5
Carried forward	£27	12	5

	£	*s.*	*d.*
Brought forward	27	12	5
*a*Green, Rev. James	0	10	6
Greenhorne, Miss (Don.) ..	1	0	0
*a*Grote, Mrs.	1	1	0
*a*Grove, Miss	0	10	6
*a*Habershon, Miss A. R. ..	1	11	6
*a*Hall, Joseph, Esq.	0	10	6
*a*Harrison, Miss	0	10	6
*a*Harvey, Rev. A. F.	3	3	0
*a*Hatfield, Miss	1	0	0
*a*Hay, Major A. E.	1	0	0
*a*Heaton, Mrs. A.	0	10	6
*a*Hilton, James, Esq.	3	0	0
*a*Jackson, R. C., Esq.	1	1	0
*a*Jackson, Rev. R. Noble ..	0	10	6
*a*James, Rev. Dr.	1	1	0
*a*Jennings, Cecil F. J., Esq. ..	1	1	0
*a*Johnstone, Miss	1	0	0
*a*Jones, R. Hesketh, Esq. ..	1	1	0
*a*Laidlay, Mrs. E. A.	0	10	0
*a*Lelievre, Rev. J. W.	0	10	5
*a*Library Mansfield College ..	1	1	0
*a*Library, Public, Aberdeen ..	0	10	6
*a*Library, The Leeds	0	10	6
*a*Macalister, Prof. A.	1	1	0
*a*McLean, Rev. S. G.	0	12	6
*a*Marston, Charles, Esq. ..	0	10	6
*a*Massie, Robert, Esq.	0	10	6
*a*Maxwell, Miss	0	10	6
*a*Monro, Rev. H. G.	0	10	6
Carried forward	£54	12	10

	£	s.	d.
Brought forward	54	12	10
aMoore, Rev. Canon Thomas	0	10	6
Morrison, Walter, Esq., M.P. (Don.)	100	0	0
aMullett, Mrs. Colonel James H.	1	1	0
aMuspratt, Miss S. L.	0	10	6
aNebury, Rev. G. S. H.	1	1	0
aOgilvie, W. M., Esq.	0	10	6
aOrmiston, J. W., Esq.	1	1	0
aOrton, R. O., Esq.	0	10	6
aPeake, George, Esq.	0	10	6
aPerry, John F., Esq.	0	10	6
aPinches, Theophilus G., Esq.	0	10	6
aPitcairn, Miss	0	10	6
aRendell, Canon	1	1	0
aReynolds-Ball, E. A., Esq.	0	10	6
aRoberts, Thomas, Esq.	0	10	6
aSandilands, General P. H.	1	0	0
aSaurebois, Prof. A.	0	10	5
aSayce, Prof. A. H.	1	1	0
Carried forward	£166	13	3

	£	s.	d.
Brought forward	166	13	3
aShackleton, Rev. T.	0	10	6
aSharp, William, Esq.	0	10	6
aShaw, E. R., Esq.	0	10	6
aSmith, Rev. M. Linton	1	1	0
aSpearman, Colonel	0	10	6
aStatham, Rev. W.	0	10	6
aSubzbergers, Judge M.	0	10	6
aTait, M. S., Esq.	0	10	6
aThrupp, Mrs. J. F.	1	0	0
aVanderbyl, Mrs.	1	1	0
aVeitch, Harry J., Esq.	1	1	0
aVidal, Hon. A.	1	1	0
Walker, Robert, Esq. (Don.)	0	10	6
aWaller, Rev. C. C.	0	10	6
aWard, Mrs. B. E.	2	2	0
aWassell, H. A., Esq.	0	10	6
aWatts, Geo. F., Esq.	1	1	0
aWelch, Francis B., Esq.	0	10	6
aYoung, David, Esq.	1	1	0
	£181	16	9

UNITED STATES, AMERICA.

Rev. Professor Theodore F. Wright, Ph.D., *Hon. General Secretary and Lecturer for the Fund.*

	£	s.	d.
April 12.—By cash	19	10	5
May 10.— „	20	19	4
June 11.— „	35	6	4
	£75	16	1

	Dols.
aAtkins, Rev. James, D.D.	2·50
aAtterbury, Rev. W. W., D.D.	5·00
aAyres, D. H., Esq.	5·00
aBarton, Prof. G. A., Ph.D.	2·50
aBickmore, Prof. A. S.	5·00
aCohen, Chas. J., Esq.	5·00
aColton, G. W., Esq.	2·50
aCrawford, J. P., Esq.	5·00
aDavis, J. W., Esq.	5·00
aDodge, Rev. D. Stuart, D.D.	25·00
aEaster, Rev. J., Ph.D.	2·50
aFarnam, Mrs. H.	10·00
aGibbs, David, Esq.	2·50
aGreene, Mrs. E. K.	5·00
aHalsey, Rev. A. W.	5·00
aHerbruck, Rev. E., Ph.D.	2·50
aHinke, Rev. Wm. J.	2·50
Carried forward	$92·50

	Dols.
Brought forward	92·50
aHyde, Clarence M., Esq.	100·00
aJewett, Rev. J. R.	2·50
aKennedy, Miss L.	10·00
aLogan, Rev. S. S.	5·00
aMerrill, Rev. G. E.	2·50
aMorrow, Rev. James, D.D.	2·50
aNiles, William, Esq.	10·00
aPyne, M. T., Esq.	5·00
aRhode Island College	2·50
aRobinson, Miss S. L.	5·00
aRopes, Prof. J. H.	5·00
aScott, Rev. C. J.	2·50
aSharpe, Miss E. M.	10·00
aSmall, Samuel, Esq.	5·00
aSouthern Baptist Seminary	2·50
aSugden, E., Esq.	5·00
aWebster, D. L., Esq.	5·00
aWebster, J. L., Esq.	5·00
aWellesley College Library	2·50
aWhite, Rev. H. K.	5·00
aWhitin, Mrs. J. C.	5·00
aWhitwer, Thomas C., Esq.	2·50
aWinslow, Rev. W. C., D.D.	5·00
aWood, Prof. I. F., D.D.	2·50
aWorcester, Rev. John	5·00
Sales of maps, books, &c.	65·65
	$370·65

ABERDEEN.

Rev. J. Smith, M.A., *Hon. Sec. and Lecturer for the Fund.*

May 6.—By cash .. £2 2*s.* 0*d.*

	£	*s.*	*d.*
Proceeds of Lantern Lectures delivered at Banchory, Coull, and Kincardine-O'Neil, by Rev. James Smith, M.A. ..	2	0	0
Sales of Photographs ..	0	2	0
	£2	2	0

BRISTOL AND CLIFTON.

Rev. Canon Wallace, *Hon. Sec.*

March 29.—By cash .. £6 4*s.* 6*d.*

	£	*s.*	*d.*
*a*Bevan, Rev. E. A.	1	1	0
*a*Bird, E. W., Esq.	0	10	6
*a*Harvey, Mr. and Mrs. E. A.	2	2	0
*a*Jose, Miss Ellen	0	10	6
*a*Mather, Rev. Canon.. ..	0	5	0
*a*Moore, Miss	0	5	0
*a*Rollo, Lord	1	0	0
*a*Wallace, Rev. Canon ..	0	10	6
	£6	4	6

DUBLIN.

Rev. R. Scriven, M.A., *Hon. Sec.*

	£	*s.*	*d.*
March 29.—By cash ..	4	14	6
April 12.— „ ..	0	10	6
	£5	5	0

	£	*s.*	*d.*
*a*Caldwell, Mrs. (1899 and 1900)..	1	1	0
*a*Crosby, Rev. E. H. Lewis ..	1	1	0
*a*Harden, Rev. R. W... ..	0	10	6
*a*Lindsay, Rev. T. S.	0	10	6
*a*Large, Rev. W. Somerville ..	0	10	6
*a*Scriven, Rev. R.	0	10	6
*a*Stewart, Miss	0	10	6
*a*White, H. K., Esq.	0	10	6
	£5	5	0

FOLKESTONE.

Rev. E. H. Cross, D.D., *Hon. Sec.*

	£	*s.*	*d.*
March 29.—By cash ..	4	19	6
April 24.— „ ..	2	12	6
June 11.— „ ..	2	6	0
June 23.— „ ..	1	16	6
	£11	14	6

	£	*s.*	*d.*
*a*Bradley, H. B., Esq... ..	1	1	0
*a*Brockman, A. D., Esq. ..	0	10	6
*a*Condy, Miss	0	5	0
*a*Courage, Miss	0	10	6
*a*Davson, J. W., Esq.	1	1	0
*a*Dawson, Mrs.	1	1	0
*a*Flint, W. W., Esq.	1	1	0
*a*Griffiths, A. E. C., Esq. ..	0	10	6
*a*Harrison, Mrs.	0	5	0
*a*Jephson, Miss..	0	10	6
*a*Larking, A. E., Esq., M.D. ..	0	5	0
*a*Melvill, Mrs.	0	10	6
*a*Richardson, Mrs. St. John ..	0	10	6
*a*Stevens, W. E., Esq... ..	0	10	6
*a*Sturt, Mrs. N.	1	1	0
*a*Ward, E. T., Esq., J.P. ..	0	10	6
*a*Warde, Mrs.	0	10	6
*a*Watkin, Mrs...	1	0	0
	£11	14	6

GLASGOW.

Rev. Prof. Wm. P. Dickson, D.D., Right Rev. Donald Macleod, D.D., Rev. Prof. George Adam Smith, D.D., *Hon. Secs.*

James Glen, Esq., 194, St. Vincent Street, *Hon. Treas.*

March 28.—By cash .. £1 1*s.* 0*d.*

	£	*s.*	*d.*
*a*Brown, John, Esq.	1	1	0

GLYN-NEATH.

Rev. J. Ll. Thomas, M.A., *Hon. Sec. and Lecturer for the Fund.*

May 26.—By cash .. £1 1*s.* 0*d.*

	£	*s.*	*d.*
*a*Llewelyn, Sir J. T. D., Bart., M.P.	0	10	6
*a*Thomas, Rev. J. Ll., M.A. ..	0	10	6
	£1	1	0

GUILDFORD.

Colonel E. H. Paske, *Hon. Sec.*

March 27.—By cash .. £4 3*s.* 0*d.*

	£	*s.*	*d.*
*a*Lawrence, Miss	1	1	0
*a*Mason, T., Esq.	0	10	6
*a*Moore, Captain, R.N. ..	1	0	0
*a*Paske, Colonel E. H... ..	0	10	6
*a*Williamson, D., Esq... ..	1	1	0
	£4	3	0

JERUSALEM.

Dr. Percy D'Erf Wheeler, *Hon. Sec.*

	£	s.	d.
April 8.—By cash ..	2	6	0
,, 23.— ,, ..	0	6	10
May 16.— ,, ..	5	15	6
	£8	8	4

	£	s.	d.
*a*Bells, Miss G. L.	1	1	0
*a*Bergheim, T. L. M., Esq. ..	0	10	6
*a*Cook, Messrs. Thos. and Son.	0	10	6
*a*Fitzjohn, Miss	0	10	6
*a*Hall, Rev. J.	0	10	6
*a*Heilperm, Bernard, Esq. ..	0	10	6
*a*Hensman, E., Esq.	0	10	6
*a*Hornstein, C., Esq.	0	10	6
*a*Hussey, Miss	0	10	6
*a*Kelk, Rev. A. H.	0	10	6
*a*Schick, Dr. Baurath	0	10	6
*a*Wister, Mrs. J.	0	10	6
Sales of books, maps, &c. ..	1	11	10
	£8	8	4

LEDBURY.

Rev. F. S. Stooke-Vaughan, *Hon. Sec.*

June 18.—By cash .. £0 10*s.* 6*d.*

	£	s.	d.
*a*Black, Rev. C.	0	10	6

LIVERPOOL.

A. B. Thorburn, Esq., *Hon. Sec.*
T. F. A. Agnew, Esq., *Hon. Treas.*

	£	s.	d.
March 24.—By cash ..	1	0	0
May 1.— ,, ..	1	1	0
	£2	1	0

	£	s.	d.
*a*Fischer, Mrs. J. J. (1899 and 1900)	1	1	0
*a*Mathieson, N., Esq.	1	0	0
	£2	1	0

MOUNTAIN ASH.

Rev. Owen Jones, *Hon. Sec.*

June 8.—By cash .. £2 2*s.* 0*d.*

	£	s.	d.
*a*Davies, R., Esq.	0	10	6
*a*Lloyd, Rev. B.	0	10	6
*a*Morgan, M., Esq.	0	10	6
*a*Williams, J., Esq.	0	10	6
	£2	2	0

MADRAS (INDIA).

Mrs. Weston Elwes, *Hon. Sec.*

March 27.—By cash £7 14*s.* 8*d.*

	Rps.
*a*Arundel, Mrs.	10
*a*Elwes, Mrs. W. Weston ..	18
*a*Morley, Mrs.	10
*a*Pemberton, Mrs.	18
*a*Sim, W. A., Esq., I.C.S. ..	25
*a*Smith, Miss A. M.	10
*a*Williams, Rev. A.	25
Rps.	116

PARIS.

Madame Hyacinthe Loyson, *Hon. Sec.*

June 23.—By cash .. £0 10*s.* 6*d.*

	£	s.	d.
Mr. and Madame Hyacinthe Loyson	0	10	6

SCARBOROUGH.

H. Turnbull, Esq., *Hon. Sec.*

June 21.—By cash .. £4 4*s.* 0*d.*

	£	s.	d.
*a*Ashby, Richard, Esq. (1898 and 1899)	1	1	0
*a*Tindall, Mrs. R. H. (1898 and 1899)	1	1	0
*a*Turnbull, N. Esq. (1898 and 1899)	1	1	0
*a*Wilson, Miss (1898 and 1899)	1	1	0
	£4	4	0

SINGAPORE.

A. Knight, Esq., *Hon. Sec.*

June 11.—By cash .. £1 1*s.* 0*d.*

	£	s.	d.
*a*Hill, Hon. E. C.	1	1	0

VICTORIA.

E. F. J. Love, Esq., B.A., *Hon. Sec.*

June 11.—By cash .. £2 14*s.* 0*d.*

	£	s.	d.
*a*Clinch, E. C., Esq.	1	1	0
*a*Cooper, Bishop	0	12	0
*a*Kelly, Rev. R.	1	1	0
	£2	14	0

SUMMARY OF LOCAL SOCIETIES.

(Acknowledged in detail under special heading.)

	Sales of Books, Maps, &c.			Lectures.			Subscriptions and Donations.		
	£	s.	d.	£	s.	d.	£	s.	d.
Aberdeen	0	2	0	2	0	0	—		
Bristol and Clifton	—			—			6	4	6
Dublin	—			—			5	5	0
Folkestone	—			—			11	14	6
Glasgow	—			—			1	1	0
Glyn-Neath	—			—			1	1	0
Guildford	—			—			4	3	0
Jerusalem	1	11	10	—			6	16	6
Ledbury	—			—			0	10	6
Liverpool	—			—			2	1	0
Madras (India)	—			—			7	14	8
Mountain Ash	—			—			2	2	0
Paris	—			—			0	10	6
Scarborough	—			—			4	4	0
Singapore	—			—			1	1	0
United States of America ..	13	9	0	—			62	7	1
Victoria (Australia).. ..	—			—			2	14	0
	£15	2	10	£2	0	0	£119	10	3

SUMMARY OF RECEIPTS.

From March 24th to June 23rd, 1900.

	£	s.	d.
Annual Subscriptions and Donations	181	16	9
Annual Subscriptions from Local Societies	119	10	3
Proceeds of Lecture	2	0	0
Total Sales of Books, Maps, and other Publications ..	144	5	1
	£447	12	1

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NELSON: Colonel Branfill.

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PERTH: Rev. P. A. Gordon Clark, West Free Church.
PORT GLASGOW: Rev. W. W. Beveridge.

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Rev. Jeremiah Zimmerman, D.D., 109, South Avenue, Syracuse.
Rev. Dana W. Bigelow, 98, State Street, Utica.
President G. E. Merrill, D.D., Colgate University, Hamilton.
OHIO: Rev. E. Herbruck, Ph.D., 1,606, E. Third Street, Dayton.
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Prof. T. C. Billheimer, D.D., Gettysburg.
RHODE ISLAND: Prof. Charles F. Kent, Ph.D., Brown University, Providence.
TENNESSEE: Prof. Collins Derrey, D.D., Vanderbilt University, Nashville.

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BANGOR: Professor T. Witton Davies, B.A., Ph.D., "Bryn Haul."
CARDIFF: Mrs. Melville, School for the Deaf and Dumb.
GLYNNEATH, S.W.: Rev. J. L. Thomas, M.A., Aberpergwm.
LAMPETER: The Rev. L. J. M. Bebb, Principal of St. David's College.
LLANDUDNO: Rev. C. T. Ashley.
MOUNTAIN ASH, S.W.: Rev. Owen Jones, Maes-Caradoc.
SWANSEA: Joseph Hall, Esq., Grosvenor House.

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BRISTOL : Messrs. W. F. Mack and Co., 52, Park Row.
BURNLEY : Messrs. Burghope and Strange, St. James's Street.
BURY : Mr. Wm. Wardleworth, Haymarket Street.
CAMBRIDGE : Messrs. Deighton Bell, and Co.
CANTERBURY : Mr. Ginder, St. George's Hall.
CARDIFF : Mr. Wm. Lewis, and Mr. Wm. Jones, Duke Street.
CHELTENHAM : Messrs. Westley, Promenade.
COLCHESTER : Mr. Mattocks, Head Street.
DARLINGTON : Mr. William Dresser, 41, High Row.
DOVER : Mr. J. J. Goulden, 176, Snargate Street.
DUBLIN : Association for Promoting Christian Knowledge, 37, Dawson Street.
DUNDEE : Messrs. Winter, Duncan, and Co.
EDINBURGH : Messrs. W. and A. K. Johnston, 20, So. St. Andrew Street.
FALMOUTH : Mr. R. C. Richards. FROME : Mr. C. J. Sage, Upper Market Place.
GALASHIELS : Mr. M. Macphail, 44, High Street.
GLASGOW : Messrs. James Maclehose and Sons, 61, St. Vincent Street.
GREENOCK : Messrs. J. McKelvie and Son. HALIFAX : Mr. King, North Gate.
HAMILTON, N.B. : Mr. Bowie. HERTFORD : Mr. E. Simson.
HOBART, TASMANIA : Messrs. J. Walch and Sons.
HUDDERSFIELD : Mr. Alfred Jubb, Estate Buildings.
HULL : Messrs. A. Brown and Sons, Limited, 26–29, Saville Street.
IRVINE : Mr. C. Marchland.
JEDBURGH (N.B.) : Mr. Walter Easton, Market Place.
LEEDS : Mr. Jackson, Commercial Street.
LINCOLN : Mr. G. Yale, High Street.
LONDONDERRY : Mr. James Hampton, Ship Quay Street.
MELTON MOWBRAY : Mr. W. Loxley. MONTROSE : Mr. George Walker.
NEWCASTLE-ON-TYNE : Mr. R. Middleton, 35, Pilgrim Street.
NORTHAMPTON : Messrs. Taylor and Son, 9, College Street.
NORWICH : Mr. W. A. Nudd.
PERTH : Mr. Jno. Christie ; Messrs. R. A. and J. Hay, George Street.
PETERBOROUGH : Mr. Geo. C. Caster, Market Place.
PLYMOUTH : Mr. Birmingham, Whimple Street.

LIST OF DONATIONS AND SUBSCRIPTIONS,

FROM JUNE 25TH TO SEPTEMBER 22ND, 1900.

a denotes Annual Subscriber.

*** If any omission or mistake be observed in the following lists, the Secretary will be very glad to be informed of it, and will rectify the error in the next *Quarterly Statement*.

	£	s.	d.
*a*Austin, Miss Gertrude ..	1	1	0
*a*Aylmer, Gen. H.	1	1	0
*a*Baron, Robert, Esq.	0	10	6
*a*Barrow, Mrs. Thomas ..	0	10	6
*a*Beeman, G. Beaumont, Esq..	0	10	6
*a*Beeman, Miss..	0	10	6
*a*Beeman, W. H., Esq.. ..	0	10	6
*a*Browne, R. Clayton, Esq. ..	1	1	0
*a*Bullinger, Rev. E. W. ..	1	1	0
*a*Caldecott, Rev. W. S. ..	1	1	0
*a*Church, the Misses	0	10	6
Clapton, Henry, Esq. (Don.)	1	4	0
*a*Clark, J. Fenn, Esq.	1	1	0
*a*Clarke, Rev. C. P.	1	1	0
*a*Collins, B. H., Esq.	2	0	0
*a*Cooke, Mrs. Cooke	1	0	0
*a*Cruikshank, Miss E. C. ..	0	10	6
*a*Davies, Mrs. J. E.	2	0	0
*a*Dixon, Mrs. L. A.	0	10	6
*a*Dobbs, Archibald E., Esq. ..	1	1	0
*a*Dury, Rev. Theodore.. ..	1	1	0
*a*Edwards, E., Esq.	0	10	6
*a*Engstrom, Rev. C. R. Lloyd	1	1	0
*a*Filleul, Rev. S. E. V... ..	1	1	0
*a*Foster, Rev. C. W.	1	1	0
*a*Fremlin, Mrs. R. J.	2	0	0
*a*Galloway, Rev. S.	0	10	6
*a*Gaster, Dr. M.	1	1	0
Carried forward £27	2	0	

	£	s.	d.
Brought forward	27	2	0
*a*Hay, Gen. M. R.	1	0	0
*a*Henderson, Miss A. B. ..	0	11	0
*a*Hill, Rev. E.	1	1	0
*a*Hodgkin, J. B., Esq... ..	1	1	0
*a*Hoskins, Miss..	0	10	6
*a*Hudson, Rev. William ..	1	1	0
*a*Hutchinson, Mrs. F. H. ..	1	1	0
*a*Hutton, Rev. F. R. C. ..	1	1	0
*a*Kay, H. C., Esq.	2	2	0
*a*Knowles, Rev. Francis ..	1	1	0
*a*Krogh, Capt. de	1	0	0
*a*Lawson of Brayton, Lady ..	1	1	0
*a*Longlands, Mrs.	1	1	0
*a*Lord, Rev. J. H.	0	10	6
*a*Lush, Dr. W. Vawdry ..	0	10	6
*a*MacBrayne, David, Esq. ..	0	10	6
*a*McLean, Norman, Esq. (1897 to 1900)	2	2	0
*a*Marriott, Miss S. J.	0	10	6
*a*Meredith's, Mrs., Institution	1	1	0
*a*Millar, Miss	0	10	6
*a*Mocatta, F. D., Esq.	5	0	0
*a*Moffat, John J., Esq. ..	1	1	0
*a*Morley, Miss	1	1	0
*a*Morrell, L. G., Esq.	1	1	0
Morrison, Walter, Esq., M.P. (Don.)	10	0	0
Carried forward £64	12	0	

	£	s.	d.
Brought forward	64	12	0
*a*Mure, the Misses	1	1	0
*a*Murray, John, Esq.	2	2	0
*a*Neele, G. P., Esq.	1	1	0
*a*Ogle, Dr.	1	1	0
*a*Ommanney, Admiral Sir Erasmus	1	1	0
*a*Ord, Miss	0	10	6
*a*Paul, Capt. E. M., R.E. ..	0	10	6
*a*Percy, Mrs. Heber	1	1	0
*a*Peto, Sir Henry	1	1	0
*a*Pharmakowsky, B., Esq. ..	2	2	0
*a*Rix, Herbert, Esq.	0	10	6
Carried forward	£76	13	6

	£	s.	d.
Brought forward	76	13	6
*a*Rodgett, Mrs...	0	10	6
*a*Rouse, Rev. W. A.	1	1	0
*a*Sanday, Rev. W.	1	1	0
*a*St. John-Hunt, Miss Alice ..	0	10	6
*a*Skipwith, G. H., Esq. ..	1	1	0
*a*Stevenson, W. E., Esq. ..	1	1	0
*a*Thompson, Capt. P.	1	1	0
*a*Tomkins, Rev. W. Smith ..	0	10	6
*a*Tuckwell, Rev. John.. ..	0	10	6
*a*Wauchope, Rev. D.	0	10	6
*a*Wood, H. K., Esq.	1	1	0
*a*Wright, Rev. H. W... ..	0	10	6
	£86	2	6

UNITED STATES, AMERICA.

Rev. Professor Theodore F. Wright, Ph.D., *Hon. General Secretary and Lecturer for the Fund.*

	£	s.	d.
July 9.—By cash ..	5	7	9
Aug. 3.— „ ..	25	19	0
Sept. 10.— „ ..	8	1	8
	£39	8	5

	Dols.
*a*Alger, Rev. N. C.	2·50
*a*Bentley, John, Esq.	10·00
*a*Bigelow, Rev. D. W.	10·00
*a*Boies, H. M., Esq.	5·00
*a*Cady, Rev. Putnam	2·50
*a*Carter, Miss S.	5·00
*a*Carter, Rev. James	2·50
*a*City Library	2·50
*a*Colgate University	2·50
*a*Congregational Library ..	2·50
*a*Dempster, A., Esq.	5·00
*a*Evans, Miss M.	5·00
*a*Gammell, William, Esq. ..	10·00
*a*Goodrich, Prof. F. S.	2·50
*a*Howell, A. J., Esq.	2·50
*a*Hyde, B. T. B., Esq.	5·00
*a*Hyde, Dr. F. E.	5·00
*a*Hyde, F. E., Esq., jun... ..	5·00
*a*Ladd, Rev. J. T.	2·50
*a*Lee, Mrs. A.	2·50
*a*Long Island Historical Society	2·50
*a*Lyon, Prof. D. G.	2·50
Carried forward	$95·00

	Dols.
Brought forward	95·00
*a*McKean, F. G.	5·00
*a*McFary, J. W., Esq.	2·50
*a*Perry, J. H., Esq.	2·50
*a*Peters, Rev. J. P., D.D. ..	5·00
*a*Reed, Rev. James	2·50
*a*Scharriffler, Rev. A. F.	25·00
*a*Sower, Charles G., Esq. ..	5·00
*a*Stevenson, E. W., Esq... ..	10·00
*a*Thayer, Prof. H. J., D.D. ..	5·00
*a*Warren, Rev. S. M.	5·00
*a*Wells College	2·50
*a*Williams, Rev. R. P.	5·00
*a*Worcester, Rev. W. L... ..	5·00
*a*Wright, Miss M. A.	2·50
*a*Wright, Rev. H. W.	2·50
Sales of maps, books, &c. ..	13·39
	$193·39

BELFAST.

Sir Wm. Q. Ewart, Bart., *Hon. Sec.*

	£	s.	d.
July 14.—By cash ..	0	10	6
July 23.— „ ..	1	1	0
	£1	11	6

	£	s.	d.
*a*Milne, Mrs.	1	1	0
*a*Nelson, Miss J. C.	0	10	6
	£1	11	6

CARDIFF.

Mrs. Melville, *Hon. Sec.*

	£	s.	d.
July 17.—By cash ..	1	1	0
August 3.— „ ..	1	0	0
	£2	1	0

	£	s.	d.
*a*Cory, John, Esq.	1	0	0
*a*Llandaff, The Lord Bishop of	0	10	6
*a*Williams, J. A. B., Esq. ..	0	10	6
	£2	1	0

FALMOUTH.

W. L. Fox, Esq., *Hon. Sec.*

Sept. 5.—By cash .. £6 11*s.* 0*d.*

	£	s.	d.
*a*Carlyon, E., Esq.	2	2	0
*a*Fox, F. E., Esq.	0	10	6
*a*Fox, Mrs. A. L.	1	1	0
*a*Fox, Robert, Esq.	1	1	0
*a*Fox, George Hy., Esq. ..	0	5	0
*a*Fox, R. Reynolds, Esq. ..	1	1	0
*a*Peters, Mrs.	0	10	6
	£6	11	0

FOLKESTONE.

Rev. E. H. Cross, D.D., *Hon. Sec.*

	£	s.	d.
July 25.—By cash ..	1	15	0
Aug. 24.— „ ..	1	16	6
	£3	11	6

	£	s.	d.
*a*Cristall, H., Esq.	0	5	0
*a*Eborall, Miss	0	5	0
*a*Henry Martin, Esq.	0	10	6
*a*Hill, Mrs.	0	5	0
*a*Penfold, Colonel	0	5	0
*a*Pigott, Mrs.	1	1	0
*a*Plowden, Miss	1	1	0
	£3	12	6

GALASHIELS.

Rev. W. Burnett Thomson, *Hon. Sec.*

Sales of Maps and Books £0 12*s.* 3*d.*

LEDBURY.

Rev. F. Salter Stooke-Vaughan, *Hon. Sec.*

Aug. 31.—By Cash .. £1 1*s.* 0*d.*

	£	s.	d.
*a*Stooke-Vaughan, Rev. F. Salter..	1	1	0

JERUSALEM.

Dr. Percy D'Erf Wheeler, *Hon. Sec.*

	£	s.	d.
July 16.—By cash ..	2	2	0
Sep. 9.—Per Messrs. Thos. Cook and Sons	2	15	0
	£4	17	0

	£	s.	d.
*a*D'Arbella, Dr.	0	10	6
*a*Domian, D., Esq.	0	10	6
*a*Kübler, J., Esq.	0	10	6
*a*Michaoloff	0	10	6
	£2	2	0

MANCHESTER.

C. J. Heywood, Esq., *Hon. Treas.*
Rev. W. F. Birch, *Hon. Sec.*

July 16.—By Cash .. £4 14*s.* 6*d.*

	£	s.	d.
*a*Bardsley, Robert, Esq. (1899 and 1900)	2	2	0
Barnes-Slacke, Rev. W. T. (Don.)	1	1	0
*a*Crossley, Mrs.	1	1	0
*a*Lees, Miss	0	10	6
	£4	14	6

NELSON (NEW ZEALAND).

Robt. T. Kingsley, Esq., *Hon. Sec.*

August 23.—By cash.. £0 10*s.* 6*d.*

	£	s.	d.
*a*Kingsley, Robt. T., Esq. ..	0	10	6

NORWICH.

Rev. J. Holden M.A., *Hon. Sec.*

	£	s.	d.
July 5.—By cash ..	2	12	6
„ 16.— „ ..	1	1	0
	£3	13	6

	£	s.	d.
*a*Barrett, Rev. J. S. (1897 and 1898)	1	1	0
*a*Holden, Rev. J., M.A. (1899 and 1900)	2	2	0
Palmer, D. H., Esq. (Don.) ..	0	10	6
	£3	13	6

OXFORD.

Rev. G. W. Thatcher, *Hon. Sec.*

July 2.—By cash .. £1 1 0

	£	s.	d.
*a*Gray, Rev. G. B.	0	10	6
*a*Thatcher, Rev. G. W. ..	0	10	6
	£1	1	0

PARIS.

Madame Hyacinthe Loyson, *Hon. Sec.*

Sept. 17.—By cash .. £2 10*s.* 10*d.*

	Frs.
*a*Carus, Dr. Paul	14
*a*Nazli, Her Highness the Princess	50
	Frs. 64

SOUTHPORT.

Dr. H. J. Bailey, *Hon. Sec.*

Sept. 20.—By cash .. £1 1*s.* 0*d.*

	£	s.	d.
*a*Belton, F., Esq.	0	10	6
*a*Cooper, Rev. Dr.	0	10	6
	£1	1	0

STEVENTON.

Rev. H. Hamilton Jackson, *Hon. Sec.*

July 26.—By cash .. £0 10*s.* 6*d.*

	£	s.	d.
*a*Horne, Miss	0	10	6

TAUNTON.

Rev. R. C. W. Raban, *Hon. Sec.*

July 24.—By cash .. £1 1*s.* 0*d.*

	£	s.	d.
*a*Penny, T. S., Esq.	0	10	6
*a*Raban, Rev. R. C. W. ..	0	10	6
	£1	1	0

YORK AND SELBY.

J. T. Atkinson, Esq., *Hon. Sec.*

July 18.—By cash .. £5 0*s.* 0*d.*

	£	s.	d.
*a*Melrose, James, Esq., J.P. ..	5	0	0

PALESTINE.

	£	s.	d.
Proceeds of a Lecture given in Palestine by Rev. F. R. C. Hutton	1	2	0

SUMMARY OF LOCAL SOCIETIES.

(Acknowledged in detail under special heading.)

	Sales of Books, Maps, &c.			Lectures.			Subscriptions and Donations.		
	£	*s.*	*d.*	£	*s.*	*d.*	£	*s.*	*d.*
Belfast		—			—		1	11	6
Cardiff		—			—		2	1	0
Falmouth		—			—		6	11	0
Folkestone		—			—		3	11	6
Galashiels	0	12	3		—			—	
Jerusalem		—			—		4	17	0
Ledbury		—			—		1	1	0
Manchester		—			—		4	14	6
Nelson (New Zealand) ..		—			—		0	10	6
Norwich		—			—		3	13	6
Oxford		—			—		1	1	0
Palestine		—		1	2	0		—	
Paris		—			—		2	10	10
Southport		—			—		1	1	0
Steventon		—			—		0	10	6
Taunton		—			—		1	1	0
United States of America ..	2	14	11		—		36	13	6
York and Selby		—			—		5	0	0
	£3	7	2	£1	2	0	£76	9	4

SUMMARY OF RECEIPTS.

From June 25th to September 22nd, 1900.

	£	*s.*	*d.*
Annual Subscriptions and Donations	86	2	6
Annual Subscriptions from Local Societies	76	9	4
Proceeds of Lectures	1	2	0
Total Sales of Books, Maps, and other Publications ..	124	14	8
	£288	8	6

LIST OF HONORARY SECRETARIES AND LOCAL ASSOCIATIONS.

AUSTRALIA.

ADELAIDE: Rev. F. W. Cox, Wakefield Street East.
NEW SOUTH WALES: Rev. Alfred George Stoddart, Southern Forest.
SYDNEY: W. P. F. Dorph, Esq., The A. J. S. Bank, Limited, Head Office.
VICTORIA: E. F. J. Love, Esq., B.A., Queen's College, University of Melbourne.

CANADA.

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ST. THOMAS, ONTARIO: Rev. George F. Salton.

CHINA.

KIUKIANG: Rev. Edward S. Little.
SEOUL: Alex. Kenmure, Esq.

ENGLAND.

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ASHBURTON: Rev. H. I. Barton Lee, Headborough.
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BIRMINGHAM:
BOLTON AND HORWICH: Rev. T. Forbes, Church Institute.
BOURNEMOUTH: W. McGregor, Esq., M.I.E.E., Glen Huntly, Richmond Park.
BROSELEY: Rev. I. W. Johnson, M.A., Benthall.
BURNLEY: Alfred Strange, Esq., J.P., Greenfield House.
CHARMOUTH, DORSET: Rev. Charles Druitt, The Vicarage, Whitechurch.
CHELMSFORD: Rev. H. K. Harris, Runwell Rectory, Wickford.
CHELTENHAM: Dr. E. Wilson, Westal.
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CHISLEHURST: Rev. H. Lloyd Russell, The Vicarage.
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HORNSEA (near Hull): Rev. George G. S. Thomas.
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ISLE OF WIGHT: Rev. W. Goldsborough-Whittam, Ryde.
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LEDBURY: Rev. F. Salter Stooke-Vaughan, Wellington Heath Vicarage.
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LICHFIELD: Herbert M. Morgan, Esq.
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MANCHESTER: *Hon. Treas.*—C. J. Heywood, Esq., Manchester and Salford Bank. *Hon. Sec.*—Rev. W. F. Birch, Rector of St. Saviour's.
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NORWICH: Rev. Francis Knowles, Gimingham Rectory, North Walsham.
NOTTINGHAM: Rev. V. J. Higgins, Awsworth Vicarage.
OXFORD: Rev. G. W. Thatcher, M.A., B.D., Mansfield College.
PLYMOUTH: J. Shelly, Esq., and H. B. S. Woodhouse, Esq.
ST. HELENS: Rev. Charles Harris, M.A., F.R.G.S., Lancashire.
SALISBURY: J. Lardner Green, Esq., M.R.C.S., F.R.M.S., Tintinhull, Fowler's Road Hill.
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SHREWSBURY: Rev. C. H. Drinkwater, St. George's Vicarage.
SOUTHPORT: H. J. Bailey, Esq., M.D.
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STEVENTON: Rev. H. Hamilton Jackson, Milton Rectory, Berks.
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TAUNTON: Rev. R. C. W. Raban, Bishop's Hall Vicarage.
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UXBRIDGE: Rev. A. A. Harland, M.A., F.S.A., Harefield Vicarage.
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WILLESDEN: The Ven. Archdeacon Atlay.
WOLVERHAMPTON: Mr. J. McD. Roebuck, 3, Darlington Street.
WORCESTER: Ven. Archdeacon Walters, Alvechurch.
YEOVIL: Rev. Abel Phillips, Hendford Vicarage.
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FRANCE.

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HOLLAND.

OMMEREN: Rev. H. J. Schouten.

INDIA.

MADRAS PRESIDENCY: Mrs. Elwes, Shadowbush, Nungumbankum, Madras.
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JAPAN.

KOBE: Rev. J. C. Calhoun Newton.

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DUNEDIN: Herbert Webb, Esq., Eldon Chambers.
NELSON: Robert T. Kingsley, Esq.

PALESTINE.

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SYRIA: E. G. Freyer, Esq., *Hon. Sec.* and *Hon. Local Treasurer*, Beirut.

SCOTLAND.

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DINGWALL, N.B.: Rev. J. R. Macpherson, B.D., The Manse.
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GATEHOUSE: Rev. W. F. Carpenter, Cally Parsonage.
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GREENOCK: Rev. Hugh Macmillan, D.D., LL.D., F.R.S.
HAMILTON: Rev. Thomas M. B. Paterson, Ardenclutha.
INVERNESS: D. S. Chisholm, Esq.

KIRKCALDY: Henry Morton Barnett, Esq., 17, Townsend Place.
MILLPORT: Rev. Alex. Walker, Millburn.
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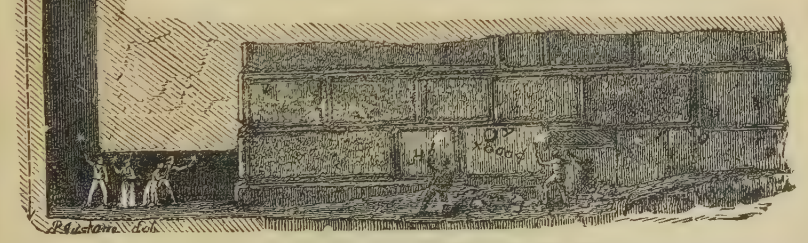

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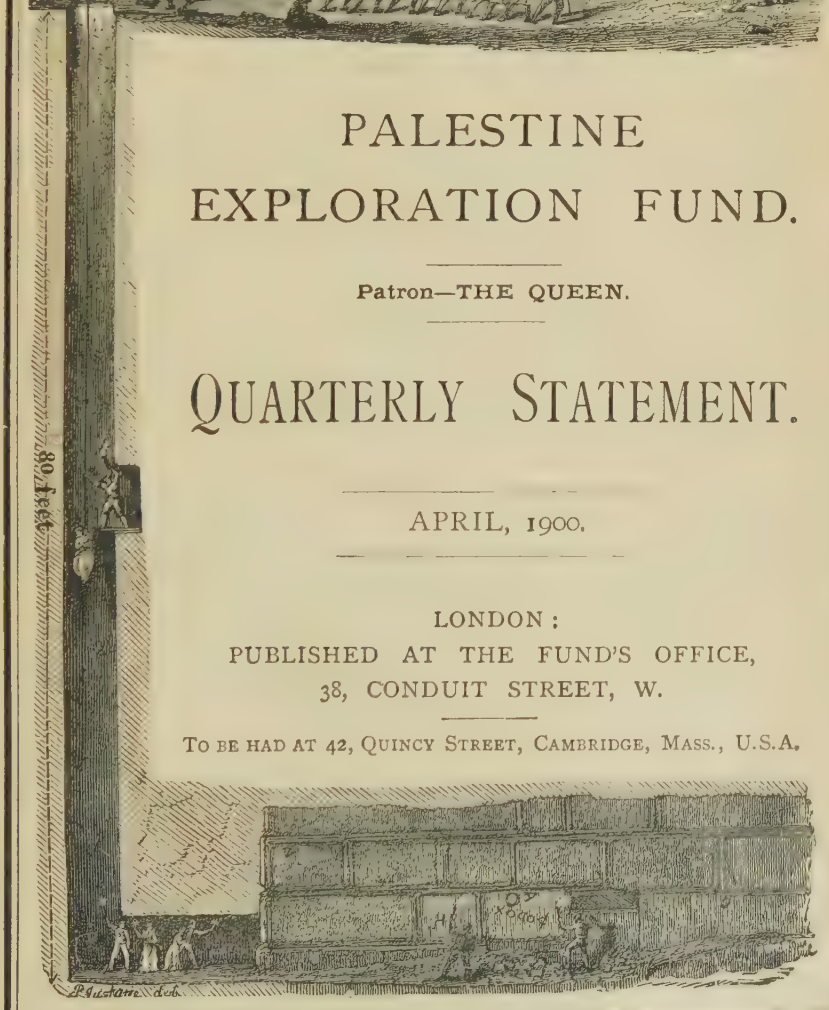

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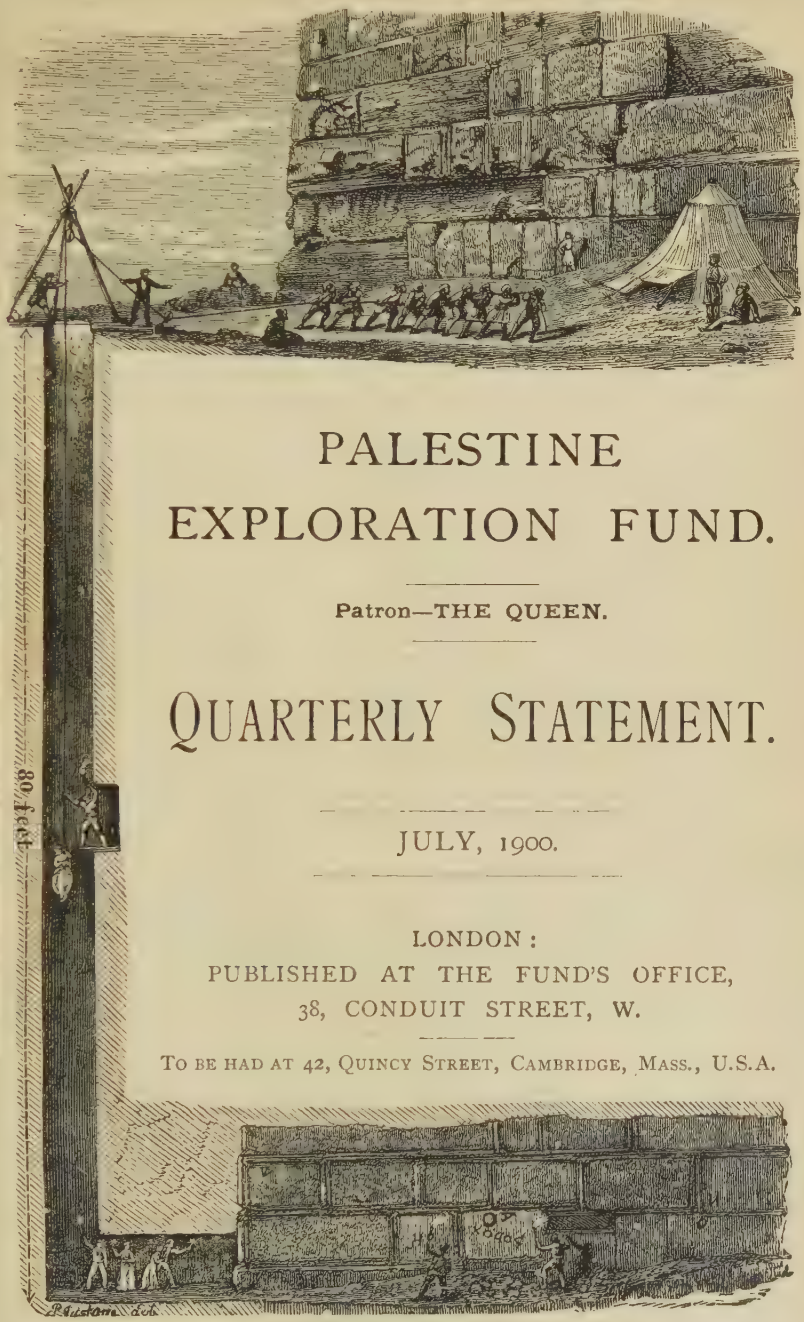

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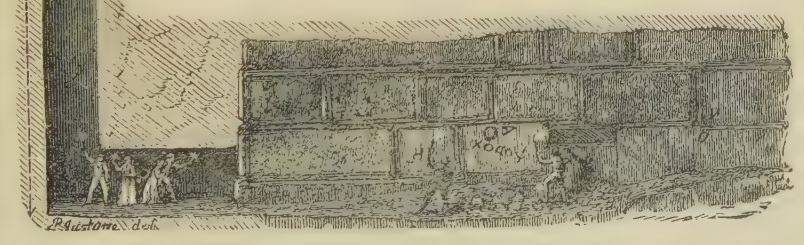

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